

TCP/11/16(355)

Planning Application 14/01885/IPL – Erection of a dwellinghouse (in principle), land 50 metres south west of Milton Farm Cottage, Abernyte

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TCP/11/16(355)

Planning Application 14/01885/IPL – Erection of a dwellinghouse (in principle), land 50 metres south west of Milton Farm Cottage, Abernyte

PAPERS SUBMITTED BY THE APPLICANT

NOTICE OF REVIEW

UNDER SECTION 43A(8) OF THE TOWN AND COUNTRY PLANNING (SCOTLAND) ACT 1997 (AS AMENDED)IN RESPECT OF DECISIONS ON LOCAL DEVELOPMENTS

THE TOWN AND COUNTRY PLANNING (SCHEMES OF DELEGATION AND LOCAL REVIEW PROCEDURE) (SCOTLAND) REGULATIONS 2013

THE TOWN AND COUNTRY PLANNING (APPEALS) (SCOTLAND) REGULATIONS 2008

IMPORTANT: Please read and follow the guidance notes provided when completing this form. Failure to supply all the relevant information could invalidate your notice of review.

Use BLOCK CAPITALS if completing in manuscript

Applicant(s)	Agent (if any)
Name MICHAEC SANDS	Name Kene Doe
Address MILTON FARM ABOXNUTE PERTHSHIRE	Address MUNCHOUSES FACE CLANGE ELRSC
Postcode PHI4 953	Postcode PHZ 7773
Contact Telephone 1 Contact Telephone 2 Fax No	Contact Telephone 1 C7813138647 Contact Telephone 2 C1821 642 333 Fax No
E-mail*	E-mail* preische 66 hormail. com
* Do you agree to correspondence regarding your	Mark this box to confirm all contact should be through this representative: Yes No review being sent by e-mail?
Planning authority	PERTH+KILLOSS COONLIC
Planning authority's application reference number	14/01885/IPC
Site address LAND SOM SOUTH ABERN YTE, PERT	HWEST OF MILTON FARM LOTTAGE, HSHIRE
Description of proposed development	DWELLINGHOUSE (IN PRINCIPLE)
Date of application 21. October 2019	Date of decision (if any)
Note. This notice must be served on the planning notice or from the date of expiry of the period allow	authority within three months of the date of the decision wed for determining the application.

		Notice of Review
Nat	ure of application	
1.	Application for planning permission (including householder application)	
2.	Application for planning permission in principle	
3.	Further application (including development that has not yet commenced and where a has been imposed; renewal of planning permission; and/or modification, variation or a planning condition)	a time limit removal of
4.	Application for approval of matters specified in conditions	
Rea	sons for seeking review	
1.	Refusal of application by appointed officer	$\overline{\triangleright}$
2.	Failure by appointed officer to determine the application within the period allowed fo determination of the application	r 🔲
3.	Conditions imposed on consent by appointed officer	
Rev	view procedure	280
time to c	e Local Review Body will decide on the procedure to be used to determine your review de during the review process require that further information or representations be made determine the review. Further information may be required by one or a combination as: written submissions; the holding of one or more hearing sessions and/or in the subject of the review case.	de to enable them on of procedures,
har	ase indicate what procedure (or combination of procedures) you think is most and an adding of your review. You may tick more than one box if you wish the review to be about the procedures.	
1.	Further written submissions	
2.	One or more hearing sessions	7
3.	Site inspection	
4	Assessment of review documents only, with no further procedure	
bel hea	rou have marked box 1 or 2, please explain here which of the matters (as set out ow) you believe ought to be subject of that procedure, and why you consider further aring are necessary:	submissions or a
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At	40 ASSESS IT COMPREHENSIVELY AGAINST THE BUILDING GROUP	CATEGORY
10	THE HOUSING IN THE COUNTRYSIDE POLICY 2012 AND P	scily RD3 in THE
	e inspection	LDP 2214.
In 1	the event that the Local Review Body decides to inspect the review site, in your opinion	on: Yes No
1.	Can the site be viewed entirely from public land?	
2	Is it possible for the site to be accessed safely, and without barriers to entry?	
	there are reasons why you think the Local Review Body would be unable accompanied site inspection, please explain here:	to undertake an

Page 2 of 4

SITE INSPECTION REQUIRED FOR FARM SAFETY.

-Statement

You must state, in full, why you are seeking a review on your application. Your statement must set out all matters you consider require to be taken into account in determining your review. Note: you may not have a further opportunity to add to your statement of review at a later date. It is therefore essential that you submit with your notice of review, all necessary information and evidence that you rely on and wish the Local Review Body to consider as part of your review.

If the Local Review Body issues a notice requesting further information from any other person or body, you will have a period of 14 days in which to comment on any additional matter which has been raised by that person or body.

State here the reasons for your notice of review and all matters you wish to raise. If necessary, this can be continued or provided in full in a separate document. You may also submit additional documentation with this form.

PLEASE REFER TO THE ACCOMPANYING LETTER.
IN SHIOCT;
(D. INTERPETATION OF CATELLINY IT BUILDING GROUPS'IN
THE PAR COMOUT MOUSING IN THE COUNTRYSIDE POLICY 2012, + POLICY ROB IN THE LOCAL DEVELOPMENT PLAN 2014. (2) ADDITIONAL FLOOD EISH INFORMATION
(3) SUBSECT APPLICATION A PLANNING PERMISSION IN PLINCIPLE - SOME DETME REASONS FOR REFUSAL COULD BE CONDITIONED. AND DEART WITH AT THE DETALLED APPLICATE
4 DECISION CONTREY TO INITIAL PRE-APPLICATION FEED BACK.
(3) THE SIFE HASAMATURE AND ROBIST LANDSCAPE FRAMEWORK-

Have you raised any matters which were not before the appointed officer at the time the determination on your application was made?

Yes	No
V	Г

If yes, you should explain in the box below, why you are raising new material, why it was not raised with the appointed officer before your application was determined and why you consider it should now be considered in your review.

AN ENGINEERING SOLUTION TO ENSURE ALL OF THE ACCESS ROAD IS OUT OF THE 21NZOOME FLOUD AREA, HAS BEEN PRIPUSED AND ACCEPTED AS SATISFACTORY BY THE COUNCIL'S FLOUDING SERVICE.
THIS IS AN ADDENDUM TO THE FLOUD RISK ASSESSMENT. PLEASE REFER TO THE ACCOMPANYING LETTER.

List of documents and evidence

Please provide a list of all supporting documents, materials and evidence which you wish to submit with your notice of review and intend to rely on in support of your review.

Accom	PAGNYING LETTER EPPLICATION RESPONSE FROM THE COUNCIL
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0550	CAL MOTICE (COUNCIL FLOOD TECHNICIAN)
) flous	RISK ASSESSMENT ADDGODUM - LETTER FROM MICHAED CONSULT.
Hous	ING IN THE COUNTRYSIDE POLICY - MAY 1994 GRAMPLES OF
Bullsi	Na 9 coups DI AGRAM
te A	en (7) PHOTOGRAPH OF THE SITE
notice of t	planning authority will make a copy of the notice of review, the review documents and any he procedure of the review available for inspection at an office of the planning authority until as the review is determined. It may also be available on the planning authority website.
Checklist	
	ark the appropriate boxes to confirm you have provided all supporting documents and evidence your review:
	Full completion of all parts of this form
	Statement of your reasons for requiring a review
	All documents, materials and evidence which you intend to rely on (e.g. plans and drawings or other documents) which are now the subject of this review.
modification	nere the review relates to a further application e.g. renewal of planning permission or on, variation or removal of a planning condition or where it relates to an application for approval is specified in conditions, it is advisable to provide the application reference number, approved decision notice from that earlier consent.
Declarati	on
	ticant/agent [delete as appropriate] hereby serve notice on the planning authority to e application as set out on this form and in the supporting documents.
review th	e application as set out on this form and in the supporting documents.

16th April 2015

The Secretary
Local Review Body
Perth & Kinross Council
Committee Services
Council Building
2 High Street, Perth, PH1 5PH

Keir Doe
Muirhouses Farm
Grange
Errol
Perthshire
PH2 7TB

Dear Sir/Madam

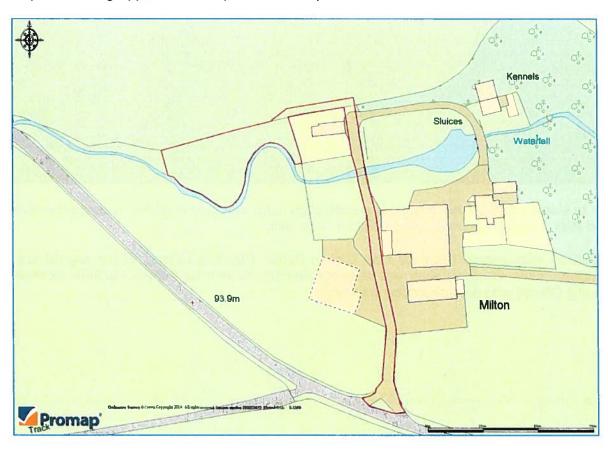
LRB Appeal: Erection of a dwellinghouse (in principle) Land 50 metres South West of Milton Farm Cottage, Abernyte (14/01885/IPL)

Introduction

The applicant; Michael Sands – aged 25, a builder and sheep farmer with the assistance of myself, submitted a planning application proposing the erection of a house for himself on Milton Farm (which belongs to his parents).

The application site is located immediately to the west of Milton Farm Cottage and adjacent to the Milton Farm building group.

Map 1: Planning Application Site (outlined in red)



The application site is surrounded by a natural and robust landscape framework, comprising; Abernyte burn and rising topography to the south, trees to the west and rising topography to the north. The proposed new build house looks to extend the building group into a definable site.

Photograph 1: Photograph (taken by a drone) of the building group and application site (located to the right of the cottage)



Prior to submitting the application, a pre-application letter was submitted and a comprehensive Flood Risk Assessment conducted by Millard Consulting.

Despite an encouraging response from Callum Petrie (Planning Officer) to the original preapplication letter, the application was refused planning consent by Persphone Beer (another Planning Officer) who determined the application.

Pre-Application Discussions & Application Submission

Prior to submitting the planning application we engaged with the Council in Pre-Application discussions.

Callum Petrie (Planning Officer) kindly provided initial feedback to the proposed development; commenting that the proposal partly fulfils Criteria 1: 'Building Group' of the Housing in the Countryside Policy 2012 and Policy RD3: Housing in the Countryside in the Local Development Plan. However, Callum's main concern was the proximity of the application site to the Abernyte Burn and the potential associated future flood risk. Please refer to Appendix 1 – Callum Petrie's pre-application response.

We acknowledged Callum's comments regarding the Abernyte Burn and potential associated future flood risk and engaged a suitably qualified consultant; Millard Consulting (based in Perth) who are Hydrology and Environmental Engineers.

Millard Consulting assessed whether a house could be built on this site and whether it was at risk of a 1 in 200 year flood event. In short, they concluded that where the house was proposed to be situated, it was <u>outwith</u> the 1 in 200 flood risk (plus climate change) envelop.

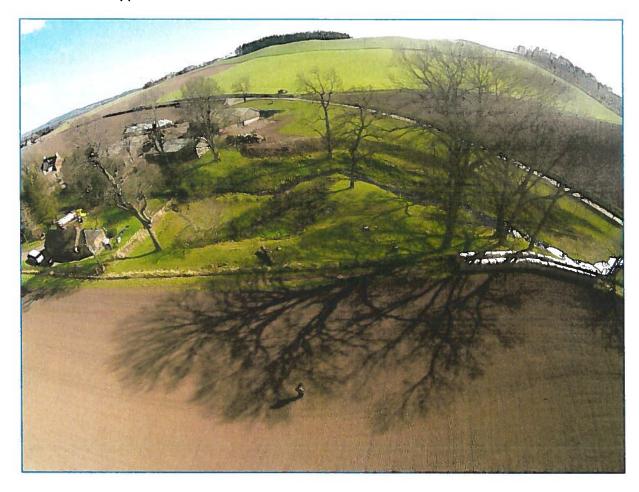
After taking into consideration the pre-application response and following the completion of a Flood Risk Assessment, a planning application was submitted.

Application Site Attributes

The application site has a considerable amount of planning attributes, including:

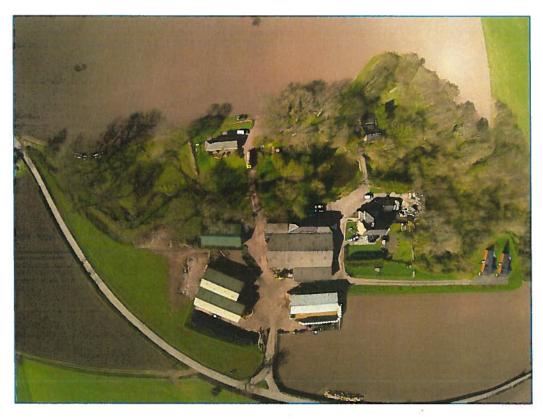
- It is surrounded by a robust, established and natural landscape framework annexed in photographs 1, 2, 3, 4 & 5.
- The trees and topography also partially screen and provide a natural backdrop for the proposed house
- The site is a natural extension to the Milton Farm building group
- A new build house would complement the adjacent cottage
- An existing access road would utilised
- The plot in its current form serves no agricultural purpose as it is severed from the rest
 of the field by the Abernyte burn
- There are no planning objections from neighbours

Photograph 2: Photograph of the site (taken by a drone) - replicated at a larger size in Appendix 2



Map 2: Map illustrating the application site and building group





Photograph 4: Looking northeastwards over the site.



Photograph 5: Looking westwards over the site towards the trees which form the western boundary



The Applicant

The applicant; Michael Sands runs his own building business which specialises in construction and renovation of; houses, farm buildings, garages, modern sheds etc. The business was established in 2010 and has since flourished. The building business now serves a large number of farms, businesses and house holders in the Carse of Gowrie. Michael now employs 4 people – all of whom live locally.

As well as running his own building business, Michael also has his own livestock enterprise which is based at the farm. He also assists his father with his mixed farming operation and his mother with her kennel and holiday rental business.





Michael currently lives in his parents house on the farm. With his building and farming businesses based on the farm, it is important that he resides on site. Therefore with a natural house plot on the farm and a builder to trade, he is keen to build a house for himself on the farm.

It should also be pointed that whilst there is a farm cottage on the farm, as Milton Farm is only 140 acres (very small by today's standards), the rental generated from this cottage is absolutely vital in supplementing the farm income.

For avoidance of doubt, the proposed house is for Michael and not to be sold off for financial gain.

Reasons for Refusing the Planning Application

We were very surprised and disappointed that the application was refused planning consent.

Since the application was refused, we have spoken to and met up with Persphone Beer – the Planning Officer who refused the application. Whilst we were obviously disappointed with her decision, she has provided us with feedback and talked through her decision – which we have found very helpful and appreciated.

Ultimately, Persphone has confirmed that the principal reason for refusing the application is due to her opinion that the proposed house does not comply with the Housing in the Countryside Policy 2012, including the 'Building Group' Category (which we firmly believe the proposal complies with).

However, Callum Petrie – Pershone's colleague who provided the initial pre-application response, appears to share our opinion that the proposal does comply with the Housing in the Countryside Policy. The interpretation of the Housing in the Countryside Policy and its application to individual cases is an entirely subjective process – so naturally not everyone will necessarily share the same opinion. I have however discussed this case with a number of planning consultants and fellow professionals and they agree that the site is a 'classic' and 'textbook' site in which to extend the building group - complying with the Housing in the Countryside Policy 2012.

Having discussed the reasons for refusal with Persphone, she is of the view that other than Reason 4: Non compliance with the Housing in the Countryside Policy, the other reasons could be/have been addressed or could be conditioned if the LRB were minded to uphold the review, although she points out that it would be up to the LRB to consider the new information which has been submitted.

The refusal notice is appended to this letter (Appendix 3). The reasons for refusal are stated below (although some have been shortened) along with our response.

<u>Reason 1</u>: Proposal contrary to Policy PM1: Placemaking of the adopted P&K Council Local Development Plan (LDP) as an additional dwelling at this location would not contribute positively to the quality of the surrounding built and natural environment.

Response: This is the Planning Officer's subjective opinion. It is also a bit unfair given that no detailed drawings of the proposed house were submitted. Based on the submission of a Planning Permission in Principle (PPP) application, how can the planning officer reasonably come to this opinion?

Summary: This Reason for refusal can be properly assessed at the detailed application stage.

Reason 2: Proposal contrary to Councils Developers Guidance Notes on Flooding & Drainage, Flood Risk and Flood Risk Assessments 2014, in that vehicular access would not be maintained on site during a 1 in 200 year event plus climate change.

Response: This was a reason for refusal as a section of the access road was within the 1-200 flood (plus climate change) area. Following the refusal of the application, we have met with Dr Emily McMillian (Council Flooding Technician) to discuss this issue (as the Council Flooding

Service raised an objection). A subsequent engineering solution devised by Millard Consulting (which essentially involves the removal of the 3 existing culvert pipes and construction of a new bridge) has been accepted as being satisfactory in principle. Please refer to Appendices 4 & 5. It should be noted that at present Milton Farm cottage in the event of a 1 in 200 year flood would be severed from the public road and emergency vehicular access would not be possible. Therefore, the proposal to build a bridge would also be a major safety improvement to the existing farm cottage.

Summary: Emily Macmillan (Council Flooding Technician) is satisfied in principle with proposal to build a bridge. This reason is therefore no longer a reason for refusal.

<u>Reason 3</u>: Proposal contrary to Policy EP2: New Development and Flooding in the LDP as no Drainage Impact Assessment was submitted.

Response: This is actually factually incorrect. There is no mention of this requirement in this policy. There is however reference to it in the supporting Guidance. We were not aware of this requirement, nor was it requested in the pre-app letter. Persphone has confirmed that a Drainage Impact Assessment (in her view) could be conditioned if the Local Review Body (LRB) were minded to grant this application. Our drainage engineers; Millard Consulting do not suspect drainage will be an issue on this site.

Summary: This Reason could be conditioned if the LRB were minded to grant consent.

<u>Reason 4</u>: Proposal contrary to Policy RD3: Housing in the Countryside of the LDP and the Council's Housing in the Countryside Guidance 2012.

Response: This is Persphone's subjective opinion/view and we strongly disagree with it. In the pre-application response letter, it is clear that Callum Petrie (the planning officer who provided the initial pre-application advice), was of the same opinion.

Category 1 (Building Groups) of the Housing in the Countryside 2012 States; 'Consent will be granted for house within building groups provided they do not detract from both the residential and visual amenity of the group. Consent will also be granted for houses which extend the group into a definable sites formed by existing topography and or well established landscape features which will provide a suitable setting. All proposals must respect the character, layout and building pattern of the group and demonstrate that a high standard of residential amenity can be achieved for the existing and proposed houses'.

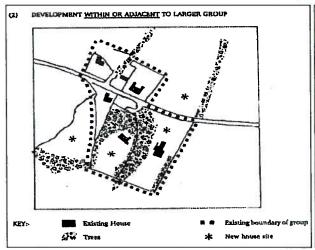
Will the proposed house 'extend the group into a definable site formed by existing topography and or well established landscape features which provide a suitable setting'? We very much believe this to be the case with the subject application site.

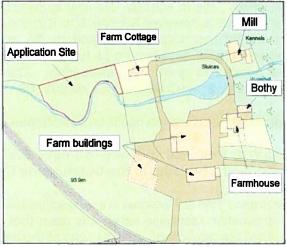
Map 3 below (also replicated in Appendix 6 at a larger scale) is an 'examples of building groups' diagram is often used as a point of reference in assessing applications proposing new house plots within or adjacent to a building group. The diagram accompanied the Housing in the Countryside Policy – May 1994 and was an Annex in the Perth Area Local Plan, which was in force up until recently. Interestingly, the wording in the 'building group' category in the 1994 policy is very similar to the 2012 Policy.

When you refer to the 'Examples of Building Groups' diagram and study the cases where a new build house site is acceptable (the asterix's mark the acceptable new house plots) and compare it to the Milton farm building group, it is quite apparent that the proposed application site is an obvious new build house site.

Map 3: P&K C 'Examples of Building Groups'

Map 4: Milton Farm Building Group





Summary: The interpretation of whether this is a valid reason to refuse the application is entirely subjective. There are however numerous cases similar to this which have been granted consent. It should also be taken into consideration that two of the Council's planning officers have interpreted and applied the Housing in the Countryside Policy differently in this case.

Reason 5: Proposal Contrary to Policy NE2 of the LDP in that it requires a Tree Survey.

Response: We were not aware of this requirement, nor was it requested in the pre-app letter. The initial response from our Environmental Engineers is that the proposed house is unlikely to have a detrimental impact on the trees. It is also important to note, that the trees are not subject to Tree Preservation Orders (TPO's) and is it unlikely that any will require to be felled. Persphone has confirmed that a Tree survey could be conditioned (in her view) if the Local Review Body (LRB) were minded to grant this application.

Summary: This Reason could be conditioned if the LRB were minded to grant consent.

<u>Reason 6</u>: Proposal Contrary to Policy RD3 of the LDP in that no information on the sites contribution to biodiversity was submitted.

Response: Again, this is actually factually incorrect. There is no mention of this requirement in this policy, but there is reference to it in the supporting Guidance. It is also a bit harsh given

that the application is a Planning Permission in Principal (PPP) one. In discussions with the Persphone Beer following the refusal of the application, she has confirmed that some additional landscaping (hedging & tree planting) and some bird/owl boxes etc would assist with complying with this policy.

Summary: This can be dealt with at the Detailed Application Stage.

Planning Policy

Having reviewed the relevant Planning Policies, including; the adopted Perth & Kinross Council Local Development Plan (LDP), Perth & Kinross Council Housing in the Countryside Policy 2012, Scottish Planning Policy (SPP) and Planning Advice Note 72: Housing in the Countryside, we are of the opinion that this proposal complies with these Material Considerations.

As already stated, we are firmly of the opinion that the proposed development complies with the Council's Housing in the Countryside Policy 2012 - Category 1: Building Groups, in that it 'extends the group into a definable the site definable and formed by existing topography and or well established landscape features which provide a suitable setting'

Scottish Planning Policy also offers considerable support for the proposed development:

- The Planning System should; 'encourage rural development that supports prosperous and sustainable communities and businesses whilst protecting and enhancing environmental quality'.
- 'A sustainable, economically active rural area, which attracts investment and supports vibrant, growing communities, is essential to our vision'.
- 'We do not wish to see development in our rural areas unnecessarily constrained. There will be a continuing need for new housing we expect more people to live and work in Scotland's rural areas as digital links and opportunities for remote working and new enterprises continue to grow' (2.26).

Summary

We were very disappointed when planning consent was refused. However, we have continued to engage with and collaborate with the council to understand the reasons for the application being refused and what is required to address these reasons.

We are firmly of the opinion that the proposed development complies with the Local and National Planning Policies. Furthermore, we also truly believe that the proposal complies with Policy RD3: Housing in the Countryside of the LDP and the 'Building Groups' Category of the Housing in the Countryside Policy 2012. In considering this case, we would request that the LRB ask themselves; does this feel like a natural house plot? And does the proposed house 'extend the existing group into a definable site formed by existing topography and or well established landscape features which will provide a suitable setting' (as per the exact wording of Category 1: Building Groups in the Perth & Kinross Council Housing in the Countryside Policy 2012)?

Essentially, this appeal comes down to whether the LRB are of the opinion that this proposal complies with the 'Building Group' Category of the Housing in the Countryside Policy 2012 or not.

It is also worth noting that there were no neighbour objections to this application. The local residents, farmers and businesses have been very supportive and encouraging of Michael's quest for a house on the application site.

Please take this letter into consideration when reviewing this appeal.

Yours sincerely

P Keir Doe MRTPI MRICS

Appendix 1: Callum Petrie's pre-application response.

Planning & Regeneration Head of Service David Littlejohn

Pullar House 35 Kinnoull Street Perth PH1 5GD Tel 01738 475000 Fax 01738 475310

Contact Customer Service Centre Telephone (01738) 475000

E-mail: <u>DevelopmentManagement@pkc.gov.uk</u>

Web: www.pkc.gov.uk

Our ref

14/00064/PREAPP

Your ref

Date

11 February 2014

Dear Mr Doe

Michael Sands,

C/O Keir Doe (via e-mail)

Pre-application Consultation: Proposed dwelling at Milton Farm

I refer to your letter and supporting information regarding the above. May I take this opportunity to apologise at the delay in responding to you regarding this enquiry.

Any future development proposal will be considered primarily in relation to the policies of the Council and the guidance of the Scottish Government, in particular the Development Plan for the area, which in this case comprises the TAYPlan 2012 and the Council's Adopted Local Development Plan 2014, where the following policies are directly relevant: PM1, RD3, TA1, NE2B, NE3 and EP2.

The Adopted Development Plan can be viewed online at:

http://www.pkc.gov.uk/article/2258/Local-Development-Plan

National planning guidance can be accessed online at:

http://www.scotland.gov.uk/Topics/Planning

Other relevant policies include:

- Perth and Kinross Planning Guidance Note Developer Contributions (2012)
- Housing in the Countryside Guide (2012)

Key issues in determining a planning application for residential development at this site (other than establishing the principle of residential development), will include the following:

- Design;
- Impact on visual amenity and character/setting;
- Layout;
- Height, scale, density and finishing materials; wider relationship to existing scale and density of area;
- Existing and proposed landscape framework;

- Trees/containment
- Access/parking;
- Drainage issues;
- Impact on capacity of local primary school (see Developer Contribution Note referred to above). A contribution of £6395 per property may be required depending on school capacity at the time of any formal application being submitted and determined.
- Flooding

From your supporting material, the site is considered to partly fulfil criteria 1 'Building Group' criteria of the 2012 Housing in the Countryside Guide, Category (a) of Policy RD3 of the adopted plan. I am not confident at this stage however that an associated proposal could be fully supported given the alignment and proximity of a watercourse passing through the site and the extent of developable land, which is not within a flood plain. I would recommend that this element is fully investigated in advance of submitting any formal planning application to establish if this element could be overcome. The siting criteria of the Housing in the Countryside Policy will also continue to apply.

1

It is only by submitting a formal application that a measured and comprehensive response to a proposed development can be given as quickly as resources permit. A formal application involves considering a proposal in terms of the Development Plan and the Council's policies on the basis of detailed plans and any further information and justification which is considered necessary. Formal assessment will also involve visiting the site and the surrounding area; researching the planning history of the site and the surrounding area; carrying out any necessary consultations; and taking account of any comments received from notified neighbours and the wider public.

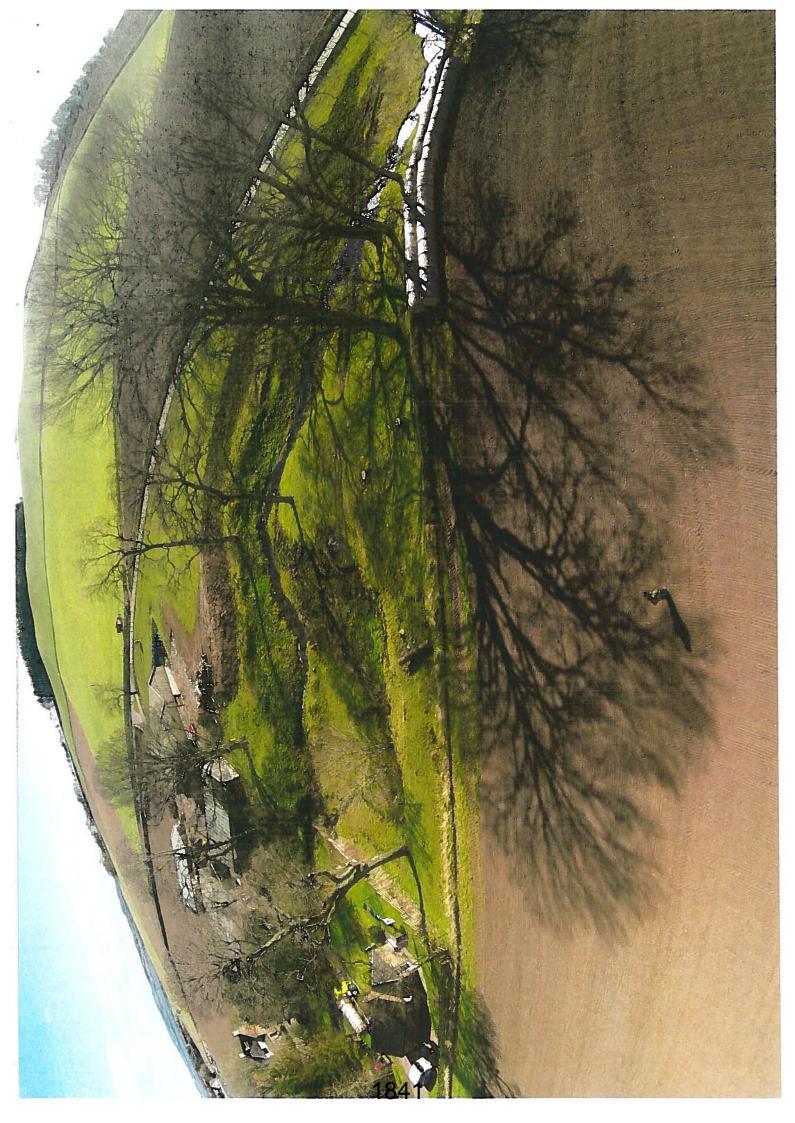
You should note that I have not necessarily identified all the policies or material considerations which might influence the determination of any planning application. The Council would not in any event be bound by such advice in the event that you submit a planning application.

I hope that this letter has been of some assistance to you.

Yours sincerely

Callum Petrie Planning Officer

Appendix 2: Photograph of the application site



Appendix 3: Refusal Notice

PERTH AND KINROSS COUNCIL

Mr Michael Sands c/o Keir Doe Muirhouses Farm Grange Errol Perthshire **PH27TB**

Pullar House 35 Kinnoull Street

Date 19th January 2015

TOWN AND COUNTRY PLANNING (SCOTLAND) ACT

Application Number: 14/01885/IPL

I am directed by the Planning Authority under the Town and Country Planning (Scotland) Acts currently in force, to refuse your application registered on 18th November 2014 for permission for Erection of a dwellinghouse (in principle) Land 50 Metres South West Of Milton Farm Cottage Abernyte for the reasons undernoted.



P Development Quality Manager

Reasons for Refusal

- 1. The proposal is contrary to Policy PM1: Placemaking of the adopted Perth and Kinross Local Development Plan 2014 as an additional dwelling in this location would not contribute positively to the quality of the surrounding built and natural heritage.
- 2. The proposal is contrary to the Council's Developers Guidance Note on Flooding and Drainage, Flood Risk and Flood Risk Assessments June 2014, in that vehicular access would not be maintained on this site during a 1 in 200 year event plus climate change event.
- 3. The proposal is contrary to Policy EP2, New Development and Flooding, of the adopted Perth and Kinross Local Development Plan 2014 as no Drainage Impact Assessment has been submitted to accompany the Flood Risk Assessment as required by this policy.

- 4. The proposal is contrary to policy RD3, housing in the countryside, of the adopted Perth and Kinross Local Development Plan 2014 and the Council's Housing in the Countryside Guide 2012. The proposal fails to satisfactorily comply with any of the categories (1) Building Groups, (2) Infill Sites, (3) New Houses in the Open Countryside, (4) Renovation or Replacement of Houses, (5) Conversion or Replacement of Redundant Non Domestic Buildings, and (6) Rural Brownfield Land. The site is located adjacent to an established building group but the proposed site does not result in a satisfactory expansion of the building group.
- 5. The proposal is contrary to policy NE2 of the adopted Perth and Kinross Local Development Plan 2014 which requires a tree survey to be provided where there are existing trees on a development site. No tree survey has been submitted to demonstrate that the site can be developed without having an adverse impact on existing trees.
- 6. The proposal is contrary to Policy RD3 of the adopted Perth and Kinross Local Development Plan 2014 in that no information on the site's contribution to biodiversity has been submitted. Policy RD3 states that a proposal should demonstrate how it will make a positive contribution to the biodiversity of the site.

Justification

The proposal is not in accordance with the Development Plan and there are no material reasons which justify departing from the Development Plan

The plans relating to this decision are listed below and are displayed on Perth and Kinross Council's website at www.pkc.gov.uk "Online Planning Applications" page

Plan Reference

14/01885/1

14/01885/2

14/01885/3

14/01885/4

Appendix 4: Email from Emily Macmillan (Council Flood Technician)

Doe, Keir

To:

pkeirdoe66@hotmail.com

Subject:

FW: Improving of access over Abernyte Burn - 14/01885/IPL

Hello,

Following our telephone discussion and the letter you forwarded on from Millard Consulting I confirm that the access proposals as stated i.e. replacement of the 3-pipe culvert with an access bridge are acceptable in principle.

Many thanks

Emily

From: Doe, Keir

Sent: 15 April 2015 10:02

To: Emily McMillan **Cc:** Persephone Beer

Subject: Improving of access over Abernyte Burn - 14/01885/IPL

Morning Emily,

As discussed, I attach a letter from Millard Consulting which proposes an engineering solution (removal of existing 3 culvert pipes and construction of a bridge) to solve the issue of blocked vehicular access to/from the proposed house in the event of a 1 in 200 year flood event.

Please confirm if this proposal is acceptable in principle.

Look forward to hearing from you.

Kindest Regards

Keir

Appendix 5: Letter from Millard Consulting proposing construction of bridge

Millard Consulting Seabraes 18 Greenmarket Dundee DD1 4QB telephone 01382 227380 facsimilie 01382 229291 email dundee@millardconsulting.co.uk www.millardconsulting.co.uk

Our Ref: AB/12894

14th April 2015

Mr M Sands Milton Farm Abernyte Perth and Kinross PH14 9SJ

Dear Michael,



INFRASTRUCTURE
HIGHWAYS
HYDROLOGY
SURVEYING
ENVIRONMENT
STRUCTURES
MANAGEMENT
EXPERT EVIDENCE
TRANSPORTATION

PROPOSED HOUSE, MILTON FARM, ABERNYTE, PERTH AND KINROSS

I refer to the request from your agent Keir Doe, that we investigate options for improving the existing access over the Milton Burn into Milton Farm from a flood risk perspective. We have now completed the assessment and our recommendations are outlined below.

The Flood Risk Assessment completed previously by Millard Consulting demonstrated that the existing access into Milton farm would, in theory, be flooded during a 1 in 200 year flood event to the extent where the access would become impassable. In addition to the small existing pipes, the culvert downstream of the site causes a significant restriction to flow which affects flood levels up to the location of the access. It is therefore not just a case of increasing culvert capacity at the access and raising the access road level, but rather raising the access road to be clear of the flood level, so as not to raise predicted Q200 flood levels upstream. It is therefore proposed that a new bridge is constructed across the watercourse at the location of the access, with a soffit higher than the predicted Q200 + 20% flood level (as predicted for the existing scenario). Figure 1 below shows an excerpt from the HECRAS model which shows the proposed bridge geometry, while Table 1 below compares predicted flood levels pre and post alteration of the access. As can be seen in figure 1, the soffit has been modelled above the predicted flood level, while the bridge has been modelled with a span of 8.1m.

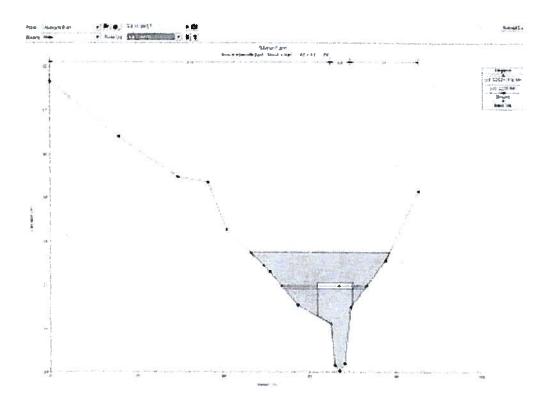


Figure 1 – Proposed Bridge Geometry

Location	Levels Pre Alteration (m)		Levels Post Alteration (m)		
	Q200 Flood Level	Q200 + 20% Figod Level	Q200 Flood Level	Control of the Contro	
Section 1	82.92	83.06	82.92	83.09	
Section 2	83.96	84.04	83.96	84.04	
Section 2.1 D	84.7	84.85	84.70	84.85	
Section 2.1 U	86.8	86.84	86.80	86.84	
Section 3	86.94	86.98	86.94	86.98	
Section 3.1	86.94	86.99	86.94	86.99	
Section 3.2	86.94	86.99	86.94	86.99	
Section 4	86.95	87.01	86.95	87.01	
Section 4.5	86.89	86.92	86.89	86.92	
Section 4.6 D	86.89	86.93	86.87	86.90	
Section 4.6 U	86.96	87.02	86.92	86.98	
Section 5	86.96	87.02	86.96	87.04	
Section 6	86.98	87.05	86.99	87.07	
Section 7	87.73	87.81	87.73	87.81	
Section 8	88.5	88.58	88.50	88.58	
Section 9	89.44	89.50	89.44	89.50	
Section 9.5	90.17	90.19	90.17	90.19	
Section 9.6 D	90.75	90.78	90.75	90.78	
Section 9.6 U	90.99	91.03	90.99	91.03	
Section 10	90.97	91.01	90.97	91.01	
Section 10.5	91.54	91.69	91.54	91.69	
Section 11	92.97	93.04	92.97	93.04	

Table 1 - Comparison between Predicted Q200 and Q200 + 20% Flood Levels for Pre and Post Access Amendment Scenarios

As can be seen from the above table, it is predicted that the new bridge crossing has an essentially neutral impact on flood risk, with very small increases in Q200 and Q200 + 20% flood level of between 0.01m and 0.02m for a short distance upstream of the access.

The following table shows results from the modelling of a blockage at the access crossing, both pre and post development. Unfortunately, due to the significant differences in geometry a direct comparison is not possible, however in this instance two of the three pipes below the existing access were blocked, while the left half of the proposed bridge span was blocked at the upstream end of the bridge.

Location		Iteration (m)	Levels Post Alteration (m)			
	Q200 Flood Level	Q200 Flood Level with 100% Blockage of 0.6m Dia. Pipe and Gne 0.48m Dia. Pipe Below Existing Access Track	Q200 Flood Level	The second secon		
Section 1	82.92	82.92	82.92	82.92		
Section 2	83.96	83.96	83.96	83.96		
Section 2.1 D	84.7	84.7	84.70	84.70		
Section 2.1 U	86.8	86.8	86.80	86.80		
Section 3	86.94	86.94	86.94	86.94		
Section 3.1	86.94	86.94	86.94	86.94		
Section 3.2	86.94	86.94	86.94	86.94		
Section 4	86.95	86.95	86.95	86.95		
Section 4.5	86.89	86.89	86.89	86.89		
Section 4.6 D	86.89	86.89	86.87	86.87		
Section 4.6 U	86.96	86.97	86.92	86.78		
Section 5	86.96	86.97	86.96	87.05		
Section 6	86.98	87.00	86.99	87.07		
Section 7					87.73	87.73
Section 8	88.5	88.50	88.50	88.50		
Section 9	89.44	89.44	89.44	89.44		
Section 9.5	90.17	90.17	90.17	90.17		
Section 9.6 D	90.75	90.75	90.75	90.75		
Section 9.6 U	90.99	90.99	90.99	90.99		
Section 10	90.97	90.97	90.97	90.97		
Section 10.5	91.54	91.54	91.54	91.54		
Section 11	92.97	92.97	92.97	92.97		

Table 2 - Assessing impact of culvert/bridge blockage

Table 2 shows that the blockage modelled for the proposed bridge would result in a larger increase in Q200 flood level for a short distance upstream, when compared to the blockage for the existing scenario. However the increase in predicted flood level, as proposed, is modest (0.08m to 0.09m). In addition, the chance of the blockage modelled for the "proposed" scenario occurring is iower than that modelled for the "existing" scenario.

The above text demonstrates that the proposed bridge crossing would result in an almost neutral effect in relation to flood risk, while significantly improving access to the proposed site, and an existing property during times of flood.

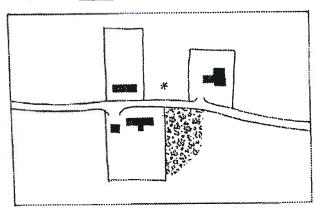
I trust the above is satisfactory at this time, however should you have any queries, or require any further information, please do not hesitate to contact us.

Yours sincerely,

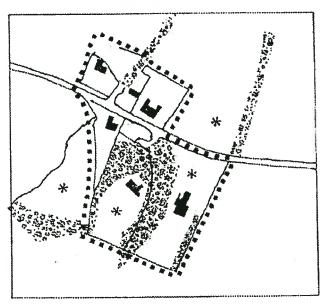
Andrew Braid Millard Consulting Appendix 6: Housing in the Countryside Policy – May 1994 'Examples of Building Groups' Diagram

EXAMPLES OF BUILDING GROUPS

(1) DEVELOPMENT WITHIN SMALL GROUP OF HOUSES



(2) DEVELOPMENT WITHIN OR ADJACENT TO LARGER GROUP



KEY:-

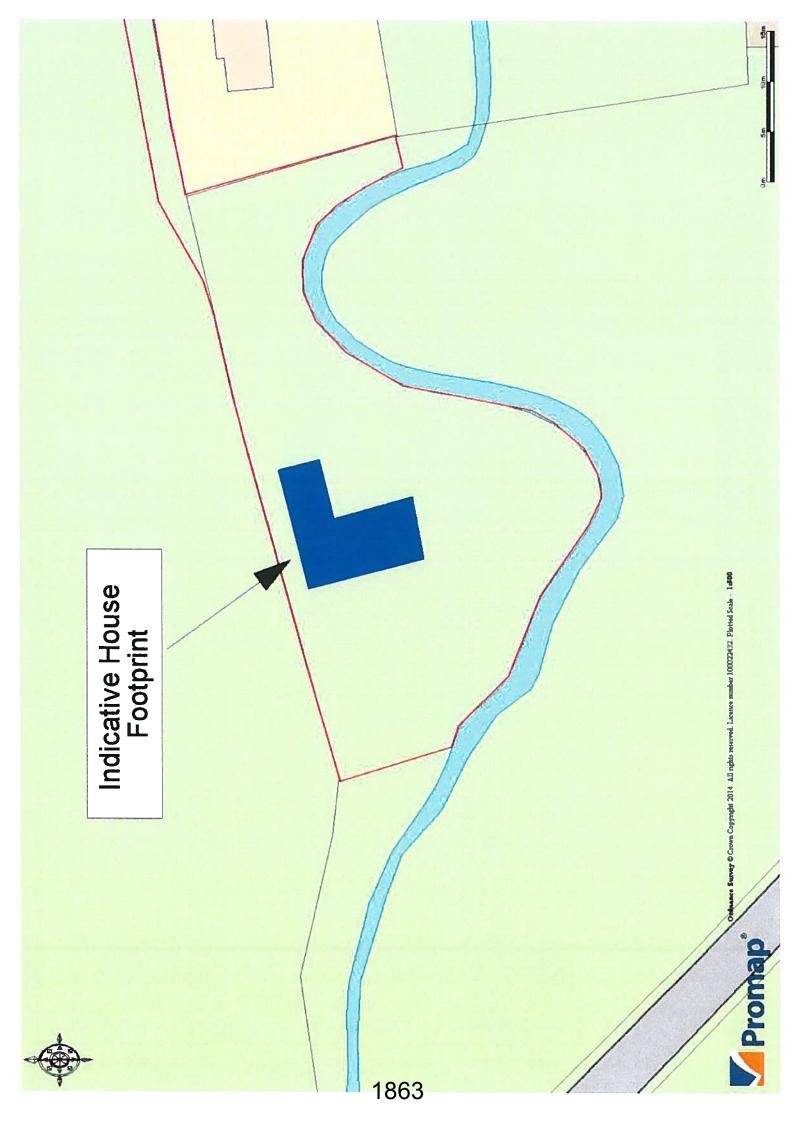
Existing House

Trees

Existing boundary of group

* New house site

Appendix 7: Indicative house footprint





TCP/11/16(355)

Planning Application 14/01885/IPL – Erection of a dwellinghouse (in principle), land 50 metres south west of Milton Farm Cottage, Abernyte

PLANNING DECISION NOTICE (included in applicant's submission, see pages 1845-1846)

REPORT OF HANDLING

REFERENCE DOCUMENT

REPORT OF HANDLING DELEGATED REPORT

Ref No	14/01885/IPL	
Ward No	-	
Due Determination Date	17.01.2015	
Case Officer	Persephone Beer	
Report Issued by		Date
Countersigned by		Date

PROPOSAL: Erection of a dwellinghouse (in principle)

LOCATION: Land 50 Metres South West Of Milton Farm Cottage

Abernyte

SUMMARY:

This report recommends **refusal** of the application as the development is considered to be contrary to the relevant provisions of the Development Plan and there are no material considerations apparent which justify setting aside the Development Plan.

DATE OF SITE VISIT: 20 November 2014

SITE PHOTOGRAPHS



BACKGROUND AND DESCRIPTION OF PROPOSAL

Planning permission in principle is sought for the erection of a dwellinghouse on land 50 metres south west of Milton Farm Cottage, Abernyte.

The site is located to the south west of a farm cottage which is part of Milton Farm which comprises a number of agricultural and residential buildings, kennels and two recent holiday lodges. The site is around 500 metres north east of the Aberntye Antiques Centre and 400 metres south east of the centre of Abernyte village.

The proposed site is located on an area of land around which the Abernyte Burn meanders. An indicative house location has been shown between a field boundary to the north and the burn to the south.

SITE HISTORY

There is no history specific to this site although there have been other proposals on the farm for residential and commercial development over recent years.

PRE-APPLICATION CONSULTATION

Pre application Reference: 14/00317/PREAPP. Concerns expressed particularly in terms of flood risk.

NATIONAL POLICY AND GUIDANCE

The Scottish Government expresses its planning policies through The National Planning Framework, the Scottish Planning Policy (SPP), Planning Advice Notes (PAN), Creating Places, Designing Streets, National Roads Development Guide and a series of Circulars.

DEVELOPMENT PLAN

The Development Plan for the area comprises the TAYplan Strategic Development Plan 2012-2032 and the Perth and Kinross Local Development Plan 2014.

TAYplan Strategic Development Plan 2012 – 2032 - Approved June 2012

Whilst there are no specific policies or strategies directly relevant to this proposal the overall vision of the Tay Plan should be noted. The vision states "By 2032 the TAYplan region will be sustainable, more attractive, competitive and vibrant without creating an unacceptable burden on our planet. The quality of life will make it a place of first choice, where more people choose to live, work and visit and where businesses choose to invest and create jobs."

Perth and Kinross Local Development Plan 2014 – Adopted February 2014

The Local Development Plan was adopted by Perth and Kinross Council on 3 February 2014. It is the most recent statement of Council policy and is augmented by Supplementary Guidance.

The principal policies are, in summary:

Policy PM1A - Placemaking

Development must contribute positively to the quality of the surrounding built and natural environment, respecting the character and amenity of the place. All development should be planned and designed with reference to climate change mitigation and adaption.

Policy RD3 - Housing in the Countryside

The development of single houses or groups of houses which fall within the six identified categories will be supported. This policy does not apply in the Green Belt and is limited within the Lunan Valley Catchment Area.

Policy PM3 - Infrastructure Contributions

Where new developments (either alone or cumulatively) exacerbate a current or generate a need for additional infrastructure provision or community facilities, planning permission will only be granted where contributions which are reasonably related to the scale and nature of the proposed development are secured.

Policy EP2 - New Development and Flooding

There is a general presumption against proposals for built development or land raising on a functional flood plain and in areas where there is a significant probability of flooding from any source, or where the proposal would increase the probability of flooding elsewhere. Built development should avoid areas at significant risk from landslip, coastal erosion and storm surges. Development should comply with the criteria set out in the policy.

Policy NE2B - Forestry, Woodland and Trees

Where there are existing trees on a development site, any application should be accompanied by a tree survey. There is a presumption in favour of protecting woodland resources. In exceptional circumstances where the loss of individual trees or woodland cover is unavoidable, mitigation measures will be required.

OTHER POLICIES

PKC Developer Contributions Supplementary Planning Guidance 2014 PKC Housing in the Countryside Guide 2012

Perth & Kinross Council – Flood Risk and Flood Risk Assessments (Developers Guidance Note on Flooding and Drainage) June 2014.

CONSULTATION RESPONSES

Environmental Health No objection.

Community Waste Advisor - Environment Service Waste and recycling bins will be collected from the road end.

It is recommended that the developer construct a bin storage area comprising a slabbed base with dropped kerb and fencing at the road end to accommodate bins for this development as well as existing houses.

Transport Planning

No objection subject to conditions with regard to turning and parking.

Local Flood Prevention Authority

Object to application on grounds of no vehicular access maintained during a 1 in 200 yr event. SPP (2014) and PKC Developers Guidance Note on Flooding & Drainage (attached) state that vehicles need to have access during a 1 in 200 yr + cc event.

Education And Children's Services

This development falls within the Abernyte Primary School catchment area.

As this application is only "in principle" it is not possible to provide a definitive answer at this stage however it should be noted that the Developer Contributions Policy would apply to all new residential units with the exception of those outlined in the policy. The determination of appropriate contribution, if required, will be based on the status of the school when the full application is received.

Contributions Officer Primary Education

As this application is only "in principle" it is not possible to provide a definitive answer at this stage however it should be noted that the Developer Contributions Policy would apply to all new residential units with the exception of those outlined in the policy. The determination of appropriate contribution, if required, will be based on the status of the school when the full application is received.

Transport Infrastructure

The application falls within the identified Transport Infrastructure Supplementary Guidance boundary and a condition to reflect this should be attached to any planning application granted.

Scottish Water No response.

Dundee Airport Ltd

No objection. This development would not infringe the safeguarding surfaces for Dundee Airport.

REPRESENTATIONS

There have not been any representations received in relation to this application.

ADDITIONAL STATEMENTS RECEIVED:

Environment Statement	Not Required
Screening Opinion	Not Required
Environmental Impact Assessment	Not Required
Appropriate Assessment	Not Required
Design Statement or Design and	Letter submitted
Access Statement	
Report on Impact or Potential Impact	Flood Risk Assessment submitted
eg Flood Risk Assessment	

APPRAISAL

Sections 25 and 37 (2) of the Town and Country Planning (Scotland) Act 1997 require that planning decisions be made in accordance with the development plan unless material considerations indicate otherwise. The Development Plan for the area comprises the approved TAYplan 2012 and the adopted Perth and Kinross Local Development Plan 2014.

The determining issues in this case are whether; the proposal complies with development plan policy; or if there are any other material considerations which justify a departure from policy.

Policy Appraisal

The site is located within a countryside area where policy RD3, Housing in the Countryside, of the Perth and Kinross Local Development Plan, applies. Policy EP2, New Development and Flooding, Policy NE2B - Forestry, Woodland and Trees and Policy PM1A – Placemaking are also of significance in the consideration of this proposal.

The housing in the countryside policy aims to safeguard the character of the countryside and supports development subject to satisfying a number of criteria.

The Council will support proposals for the erection, or creation through conversion, of single houses and groups of houses in the countryside which fall into at least one of the following categories:

- (a) Building Groups.
- (b) Infill sites.
- (c) New houses in the open countryside on defined categories of sites as set out in section 3 of the Supplementary Guidance.
- (d) Renovation or replacement of houses.
- (e) Conversion or replacement of redundant non-domestic buildings.
- (f) Development on rural brownfield land.

In addition proposals should comply with the guiding principles contained in the Council's current Guidance on the Siting and Design of Houses in Rural Areas and subsequent detailed design guidance.

The proposal should also demonstrate how they will make a positive contribution to the biodiversity of the site and where protective species may be present a survey may be required as part of the planning application to show their location.

The proposal, in terms of scale, layout and design should also be appropriate to, and have a good fit with, the landscape character of the area in which it is located, and demonstrate a specific design approach to achieve integration with its setting.

The proposal could be considered against the building group category. It does not fit with any of the other categories. The policy states that consent will be granted for houses within building groups provided they do not detract from both the residential and visual amenity of the group. Consent will also be granted for houses which extend the group into definable sites formed by existing topography and or well established landscape features which will provide a suitable setting. All proposals must respect the character, layout and building pattern of the group and demonstrate that a high standard of residential amenity can be achieved for the existing and proposed house(s).

In this case I do not consider that the proposed site meets with the policy criteria in terms of expansion of the building group into a defined site.

The agent has also mentioned that the applicant is linked to the existing farm business and would like to live on site to run his building business and look after herd of cattle. Whilst it may be advantageous for the applicant to live on site the proposal still needs to satisfy other criteria on siting and design.

It must meet all of the following criteria:

- a) it blends sympathetically with land form;
- b) it uses existing trees, buildings, slopes or other natural features to provide a backdrop:
- c) it uses an identifiable site, (except in the case of proposals for new country estates) with long established boundaries which must separate the site naturally from the surrounding ground (eg a dry stone dyke, a hedge at minimum height of one metre, a woodland or group of mature trees, or a slope forming an immediate backdrop to the site). The sub-division of a field or other land artificially, for example by post and wire fence or newly planted hedge or tree belt in order to create the site, will not be acceptable;
- d) it does not have a detrimental impact on the surrounding landscape.

In this case I do not consider that the site fulfils the above criteria.

In addition I have serious reservations that policy EP2, New Development and flooding, can be complied with and I also have concerns as to the impact on the existing trees on the site.

In conclusion I consider that the proposal is contrary to the adopted Development Plan.

Design and Layout

The proposal is for the erection of a dwellinghouse in principle. The proposed house plot is an unusual shape dictated by the meanders of the burn that runs along the southern boundary of the plot.

An indicative house location has been shown on the plot for a property of a storey and a half. It is suggested that the property incorporates traditional building materials such as stone and slate.

Landscape and biodiversity

The site is set within the valley of the Abernyte Burn amidst rolling farmland hills. The site has a number of mature trees within it and on its boundary. There was some evidence of tree felling on the site at the time of my site visit. To inform the development of the land it would have been helpful to have a tree survey to identify how the proposed development might fit into the wooded setting without detriment to this setting or the trees. I consider that the proposal is contrary to Policy NE2B, Forestry, Woodland and Trees. The policy states that where there are existing trees on a development site, any

application should be accompanied by a tree survey. There is a presumption in favour of protecting woodland resources. In exceptional circumstances where the loss of individual trees or woodland cover is unavoidable, mitigation measures will be required. I have concerns that the development of a house on this site would be detrimental to the established landscape setting, would result in unnecessary tree loss and be detrimental to the landscape character of the area the setting of the existing building group.

In addition Policy RD3 states that a proposal should demonstrate how it will make a positive contribution to the biodiversity of the site. No information on the site's contribution to biodiversity has been submitted. The proximity to the burn and the number of mature trees in the vicinity could have an adverse impact on the biodiversity interest of the site.

Residential Amenity

The site is in a rural location close to farming and other rural enterprises. The Council's Environmental Health Officer has highlighted that future occupants of the proposed development will be aware of the use character of the area and that there is potentially a certain amount of noise and odour associated with such a location. In this case no residential amenity issues are identified.

No concerns have been raised in relation to any potential ground contamination.

Visual Amenity

The site would be detached from the existing building group in an attractive setting adjacent to the burn. This provides a backdrop to the existing building group and an extension into this area would have a detrimental visual impact.

Roads and Access

The proposed house will utilise the existing farm access. The Council's Transport Planners consider this is adequate based on the limited intensification of its use associated with a single dwelling but state that the final layout of the site should incorporate adequate turning and parking facilities in the interests of road safety. This would be required should a detailed application be submitted.

Drainage and Flooding

The site falls within SEPA's medium probability (0.5%) flood map and a flood Risk Assessment has been submitted with the planning application. This demonstrates that the proposed house location is outwith the 1 in 200 yr flood extents and that pedestrian access can be maintained via a field to the north of the proposed house. However the report states that vehicular access

cannot be maintained during a 1 in 200 year flood event. The Council's Flood Officer objects to the application on grounds of there being no vehicular access maintained during a 1 in 200 yr event. SPP (2014) and PKC Developers Guidance Note on Flooding & Drainage (attached) state that vehicles need to have access during a 1 in 200 yr + cc event.

Policy EP2 states that a flood risk assessment should normally be accompanied by a Drainage Impact Assessment and that development in rural areas should be located outwith the 1:200 flood plain.

Whilst the Flood Risk Assessment has shown that the house could be built outwith the 1 in 200 year event other parts of the plot would be within this area. The Council's Guidance on Flood Risk also states (5.3.1) that information on site drainage should also be included to demonstrate drainage arrangements for the plot. A Drainage Impact Assessment has not been submitted.

The Council's Flood Risk guidance (6.2.6) on *Safe Access/Egress also states* that any new development must incorporate safe access/egress for pedestrians and vehicular traffic within the development site. This should take account of flooding from all sources such as the predicted 0.5% AP (200-year) including climate change flood envelope and overland flood routes from within and external to the site. The FRA says that vehicular access cannot be maintained during a 1 in 200 year event which is contrary to Council policy and subject to an objection from the Council's Flood Officer.

I consider that in this constrained site with a water course forming around half of the site boundary insufficient information has been submitted to demonstrate that a satisfactory development can be achieved in terms of the constraints imposed by flood risk.

Developer Contributions

Primary Education

The Council Developer Contributions Supplementary Guidance requires a financial contribution towards increased primary school capacity in areas where a primary school capacity constraint has been identified. A capacity constraint is defined as where a primary school is operating, or likely to be operating following completion of the proposed development and extant planning permissions, at or above 80% of total capacity.

This proposal is within the catchment of Abernyte Primary School.

As this application is only "in principle" it is not possible to provide a definitive answer at this stage however it should be noted that the Developer Contributions Policy would apply to all new residential units with the exception of those outlined in the policy. The determination of appropriate contribution, if required, will be based on the status of the school when the full application is received.

Transport Infrastructure

The Council Transport Infrastructure Development Contributions Supplementary Guidance requires a financial contribution towards the cost of delivering the transport infrastructure improvements which are required for the release of all development sites in and around Perth.

The application falls within the identified Transport Infrastructure Supplementary Guidance boundary and a condition to reflect this should be attached to any planning application granted.

Economic Impact

The economic impact of the proposal is likely to be minimal and limited to the construction phase of the development.

Conclusion

In conclusion, the application must be determined in accordance with the adopted Development Plan unless material considerations indicate otherwise. In this respect, the proposal is not considered to comply with the approved TAYplan 2012 and the adopted Local Development Plan 2014. I have taken account of material considerations and find none that would justify overriding the adopted Development Plan. On that basis the application is recommended for refusal subject to conditions.

APPLICATION PROCESSING TIME

The recommendation for this application has been made within the statutory determination period.

LEGAL AGREEMENTS

None required.

DIRECTION BY SCOTTISH MINISTERS

None applicable to this proposal.

RECOMMENDATION

Refuse the application

RECOMMENDATION

Refuse the application

Reasons for Recommendation

- The proposal is contrary to Policy PM1: Placemaking of the adopted Perth and Kinross Local Development Plan 2014 as an additional dwelling in this location would not contribute positively to the quality of the surrounding built and natural heritage.
- The proposal is contrary to the Council's Developers Guidance Note on Flooding and Drainage, Flood Risk and Flood Risk Assessments June 2014, in that vehicular access would not be maintained on this site during a 1 in 200 year event plus climate change event.
- The proposal is contrary to Policy EP2, New Development and Flooding, of the adopted Perth and Kinross Local Development Plan 2014 as no Drainage Impact Assessment has been submitted to accompany the Flood Risk Assessment as required by this policy.
- The proposal is contrary to policy RD3, housing in the countryside, of the adopted Perth and Kinross Local Development Plan 2014 and the Council's Housing in the Countryside Guide 2012. The proposal fails to satisfactorily comply with any of the categories (1) Building Groups, (2) Infill Sites, (3) New Houses in the Open Countryside, (4) Renovation or Replacement of Houses, (5) Conversion or Replacement of Redundant Non Domestic Buildings, and (6) Rural Brownfield Land. The site is located adjacent to an established building group but the proposed site does not result in a satisfactory expansion of the building group.
- The proposal is contrary to policy NE2 of the adopted Perth and Kinross Local Development Plan 2014 which requires a tree survey to be provided where there are existing trees on a development site. No tree survey has been submitted to demonstrate that the site can be developed without having an adverse impact on existing trees.
- The proposal is contrary to Policy RD3 of the adopted Perth and Kinross Local Development Plan 2014 in that no information on the site's contribution to biodiversity has been submitted. Policy RD3 states that a proposal should demonstrate how it will make a positive contribution to the biodiversity of the site.

Justification

The proposal is not in accordance with the Development Plan and there are no material reasons which justify departing from the Development Plan.

Informatives
None.
Procedural Notes
Not Applicable.
PLANS AND DOCUMENTS RELATING TO THIS DECISION

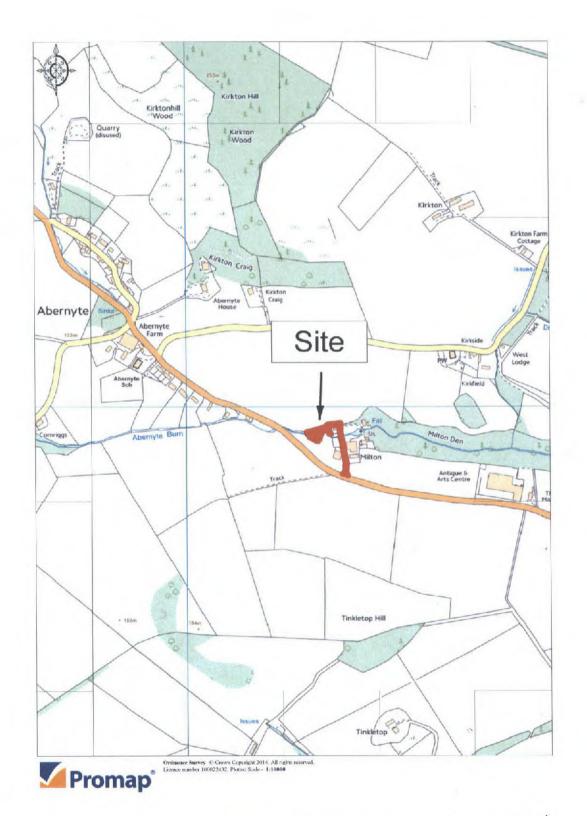
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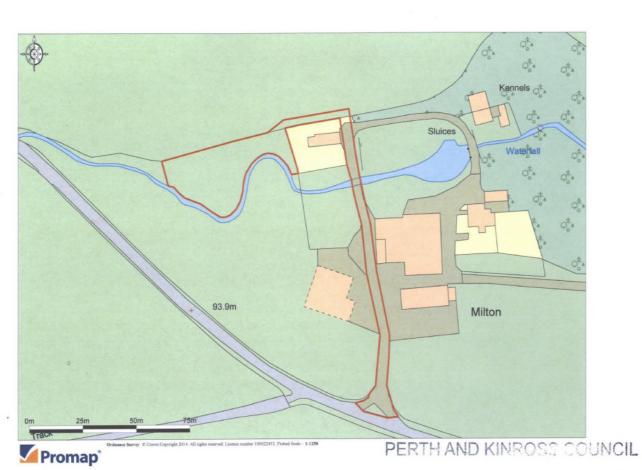
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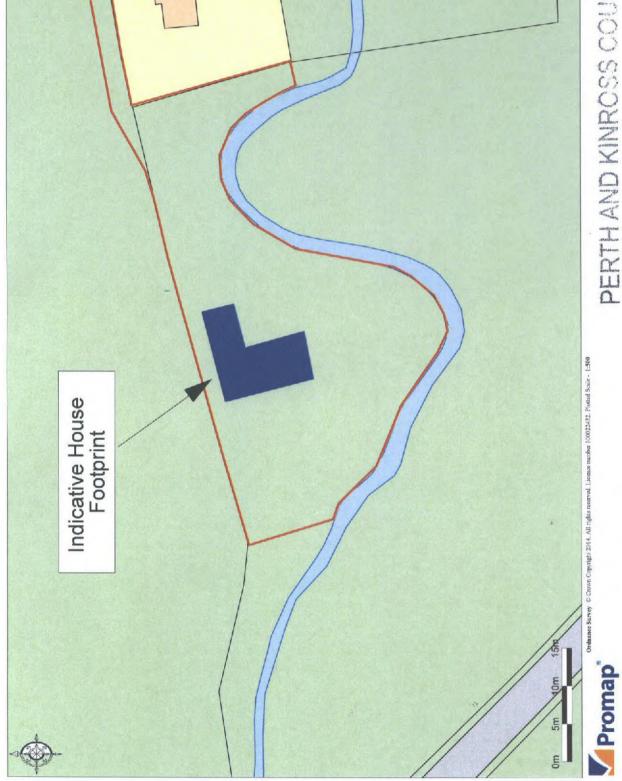
Date of Report 17.01.2015



DRAWING REF: 14/01885/1
1879



DRAWING REF: 14/01885/2



PROPOSED HOUSE AT MILTON FARM, ABERNYTE, PERTH AND KINROSS

FLOOD RISK ASSESSMENT

September 2014

Report Ref: 12894/AB/246

PERTH AND KINROSS COUNCIL

DRAWING REF: 14/01885/4

CLIENT:

Mr M Sands

ENGINEER:

Millard Consulting

Inveralmond Business Centre

Auld Bond Road

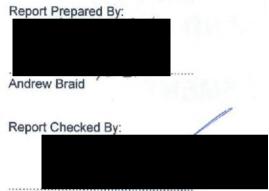
Perth PH1 3FX

Tel:

01738 646750

Fax:

x: 01738 646747



Brian Coghlan (Technical Director)

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Opinions and information provided in the report are on the basis of T A Millard Scotland Ltd using due skill, care and diligence in the preparation of the same. No independent verification of any of the documents or information supplied to T A Millard Scotland Ltd had been made.

Ref:12894/AB/246

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Appendix A: Data and Results from WINFAP-FEH Flow Analysis

Appendix B: Data and Results from ISIS Flow Analysis

Appendix C: Output from HECRAS Hydraulic Model

PLANS

12894/21/001 Flood Envelope and Cross Section Location Plan

This document should be provided, and attached within the	e front cover o	of any flood risk	assessments	issued to Local Pl	anning Authorities	1	
in support of a development proposal which may be at ris							
assist SEPA in reviewing FRA's, when consulted by LPA's					opiata analitic		
	*						
Development Proposal;							
Site Name							
77-77-77				Milton	Farm, Aberryte		
Grid Reference	easting	326344	northing	730925			
Local Authority	Per	th and Kinross Co	uncil				
Planning Reference number (if known)							
Nature of the development		Residential		if residential, what typ	8)	single hous	8
Identified Flood Risk	Source	Fluvial		Source name:		Abemyte Burn	
Supporting Information;							
Have clear maps / plans been provided within the FRA (incl topogrphic	rlane	Yes	1		-		
Has an historic flood search been undertaken?	pions	No					
Is a formal flood prevention scheme present?		No		If known state the s	andard of protection o	fiered	
Current / historical site use				I America Store and S	Greenfield	norou	
Hydrology	1						
Omed estimate			m²/s	Method	Select from List		
Estimate of 200 year design flood flow		119	m³/s		4-2-		
Estimation method(s) used:		Rainfall-runoff		f other (please specify		district Orders	chan Una
				If Pooled analysis have	e group details been in	cluded Select	from List
Hydraulics;							
Hydraulic modelling method		1D steady	1	Software used	HEC-RAS		
If other please specify	100	- to storey		CONTINUE WOOD	THE OTHER T		
Modelled reach length		364	m				
Any structures within the modelled length?		Combination		Specify if Combination		3 culverts	
Brief summary of sensitivity tests, and range.							
variation on flow (%)		10	%				
variation on channel roughness ?		0.01	07:	D-C	A A CONTRACTOR	and the first of the	
blockage of structure (range of % blocked) boundary conditions:		Varies Upstream	79	Reference CIRIA culve	Downstream	section 6.4	
(1) type		Normal depth	1		Normal depth		
(i) spo	Specify if Other		-	Specify if Other	stomar dopen		
(2) does it influence water levels at the site?	opouty a build	Select from List		Discould in Cities	No		
Has model been calibrated (gauge data / flood records) ?		No					
s the hydraulic model available to SEPA?		No	10	4 4			
a California a							
Development;							
Is any of the site within the functional floodplain? (ref to SPP7 para 16	-18)	Yes		If yes, what is the net	loss of storage	m3	
Brownfield or greenfield Freeboard on design water level (m)		Greenfield 0.6	100				
Sensitive use ? (ref to SPP7 para 37 and the Risk Framework)	-	No	m			-	
Safe / dry access and egress available		Pedestrian	Return period	200	years Min a	ccess/egress level	mAl
If not, what are the impacts on the access routes:	0.5%AEP event		m		Flood velocity:	m/s	
Design levels	Platform level		mAOD	Min FFL	88 41 mAO		
AND							
Mitigation:		V-	-				
Compensatory storage (direct, like for like)		Yes Select from List					
Compensatory storage (direct, like for like) Compensatory storage (indirect)		Select from List					
Management demonstrated by modelling	-	Select from List					
2 - The options of the seaming		Adison tions Plat.	-				
Comments							
Any additional comments							
		4					
Approved by: Andrew Braid			Organisation:	Millard Consulting			
							Thank you!

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1.0 Introduction

Millard Consulting have been instructed by Mr M Sands to carry out a Flood Risk Assessment in relation to the construction of a new house on land at Milton Farm, Abernyte, Perth and Kinross. The following report outlines the site proposals and analyses the potential flood risk to the site, while recommendations for the development to mitigate against potential flood risk.

This Flood Risk Assessment is carried out in accordance with the requirements of the Scottish Planning Policy (SPP) (Scottish Government, 2010). This assessment uses a set of procedures originally set out in the Flood Estimation Handbook (Institute of Hydrology, 1999) and embodied in the FEH and WINFAP software packages currently used.

The assessment is prepared using our best engineering judgement but there are levels of uncertainty implicit in the historical data and methods of analysis. Details of the range of possible error in the methods of flood estimation are given in the Flood Estimation Handbook (FEH).

For most developments flood risk is typically assessed for a 1 in 200 year flood event.

2.0 General Description of Site

The proposed development consists of the construction of one new house on greenfield land at Milton Farm, Abernyte. The proposed development site is approximately centred at grid reference NO 26344 30925. The site location is shown in Figure 1 below, bounded in red.

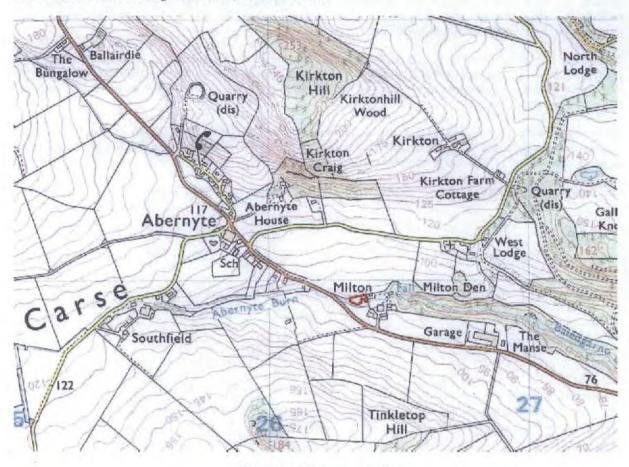


Figure 1 - Site Location Plan

The site is approximately 0.12ha in size and irregular in shape. As far as is known it has never previously been developed, and it is bounded to the north by farmland, to the east by a neighbouring property and to the south/south west by the Abernyte Burn. The site is currently covered with grass and occasional trees, and the topography slopes in a southerly direction towards the watercourse.

The Abernyte Burn flows in an easterly direction past the site, and is culverted at three locations in the vicinity of the site. Approximately 70m upstream of the site the watercourse is culverted below the B953. This culvert is roughly rectangular in shape, and approximately 1.7-1.8m wide and 0.8m high. The culvert is approximately 10m long, with formal headwalls constructed at both the inlet and outlet. The Abernyte Burn is culverted again 24m downstream of the site. This culvert consists of three pipes, approximately 4m long; two of the pipes are 0.48m diameter, while the central pipe is 0.6m diameter. These pipes facilitate an access crossing to the existing buildings. The access consists of an informal track, with the deck of the track at the centre of the watercourse, approximately 1.2m higher than the bed. The final culvert within the modelled reach of the watercourse is approximately 80m downstream of the site. This culvert is at the downstream end of a pond which is situated between the downstream culvert and the access road culvert noted above. The culvert is of masonry arch construction and is approximately 3.8m long, while it is between 1.8m and 2m high and 2.2m wide.

Immediately upstream of the masonry arch culvert, the presence of a weir is noted. This weir regulates the water level in the pond. At the time of the topographical survey the spill level was noted as 84.798m.

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Proposed House at Milton Farm, Abernyte, Perth and Kinross Flood Risk Assessment

The site has been topographically surveyed by Douglas Land Surveys. The survey of the site is shown on drawing 12894/21/001, enclosed within the "Plans" section of this report.

3.0 General Observations

The objective of this flood risk assessment is to analyse the flows in the watercourse and define the appropriate flood levels and flood envelope affecting the site.

As outlined above the proposal is to construct one house on greenfield land, which lies adjacent to the Abernyte Burn. The potential flood risk from the Abernyte Burn therefore needs to be assessed.

In addition to predicted flood flows, the land surrounding the site and its corresponding roughness values will influence predicted flood levels, as will the presence of the culverts located in the vicinity of the site, and the weir at the downstream end of the pond. These structures have been modelled as part of this report. The results of the hydraulic model are outlined in Section 5.0.

4.0 Estimation of Flood Flows

In order to define the extent and water surface level of the 200 year (0.5% annual probability) floodplain, we have made an assessment of flood flows and flood levels in the Abernyte Burn using both the FEH Statistical Method and the FEH Rainfall Runoff Method outlined in the Flood Estimation Handbook (FEH). The estimated flood levels in the watercourse have then been factored up by 20% to allow for the potential influence of climate change (following established practice, and in line with guidance from the UK Climate Impacts Programme).

4.1 FEH Statistical Method

4.1.1 Estimation of Index Flood QMED

In order to define the extent and water surface level of the 0.5% annual probability floodplain, we must first estimate the Index Flood, Q_{MED} , using the methods outlined in the Flood Estimation Handbook (FEH). For the subject site, the flood flows need to be estimated for the Abernyte Burn only.

There are no observed flow records for the Abernyte Burn, hence flows for the watercourse will be estimated using Catchment Descriptors, and adjusted using flow records from an analogue site.

An initial estimate of the flood flows for the Abernyte Burn was made using the Catchment Descriptor Method. This method is described in Volume 3, Chapter 13, of the FEH. The catchment descriptors define various physical and hydrological properties and characteristics of the land that forms the catchment upstream of the point of interest. The formula also includes variables that define the statistical rainfall pattern within the catchment. There is a further adjustment to the formula that accounts for the degree of urbanisation of the catchment.

The method produces the mean annual flood Q_{MED} – the index flood – which is the flood flow along the river or floodplain that is statistically "exceeded on average every other year". It is roughly equivalent to the two-year flood. The exercise is done using the FEH and WINFAP software.

The results of the estimation of Q_{MED} are shown overleaf. The extent of the Abernyte Burn catchment upstream of the site, as defined by the FEH software, is shown together with a listing of the catchment descriptors. The FEH software defines a catchment of 9.64km^2 for the Abernyte Burn at the site. A manual check of catchment size through the inspection of Ordnance Survey mapping confirmed the FEH catchment estimate as being correct.

The WINFAP-FEH estimation of QMED from catchment descriptors is 1.638m³/s.

VERSION	FEH CD-ROM	Version	3	exported	11:49:46	GM'
CATCHMENT	GB	326450	730950	NO 26450	30950	
AREA	9.64					
ALTBAR	195					
ASPBAR	107					
ASPVAR	0.29					
BFIHOST	0.608					
DPLBAR	2.92					
DPSBAR	121.8					
FARL	0.994					
LDP	5.65					
PROPWET	0.46					
RMED-1H	9.2					
RMED-1D	36.4					
RMED-2D	46.5					
SAAR	783					
SAAR4170	806					
SPRHOST	29.36					
URBCONC1990	-999999					
URBEXT1990	0.0005					
URBLOC1990	-999999					
C	-0.01694					
D1	0.4701					
D2	0.4051					
D3	0.256					
E	0.25186					
F	2.1973					
C(1 km)	-0.017					
D1(1 km)	0.479					
D2(1 km)	0.41					
D3(1 km)	0.262					
E(1 km)	0.251					
F(1 km)	2.183					

Figure 2 - Catchment Descriptors for Abernyte Burn at Site

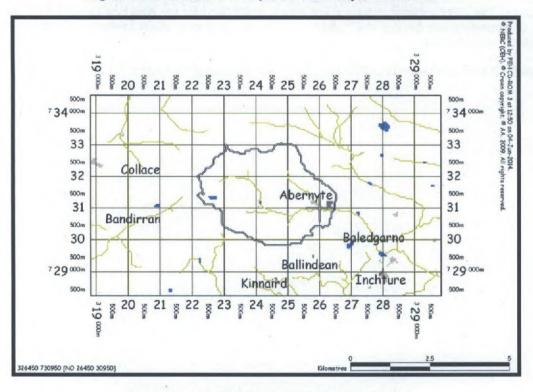


Figure 3 - Catchment of Abernyte Burn at Site

4.1.2 Adjustment to QMED from a Donor Site

In order to make the estimation of QMED more accurate, it is necessary to use flow data from

- · a similar donor site on the same watercourse or a neighbouring one, or
- an analogue site in another catchment with similar hydrological characteristics, where gauged information does exist for an adequate number of years

An appropriate local adjustment to the estimate of Q_{MED} at the subject site is then made. The procedure involves deriving Q_{MED} from the observed record at the gauged site, and also from the catchment descriptors at the gauged site, and using the ratio of these two estimates to adjust the catchment descriptor estimate of Q_{MED} at the subject site.

Two analogue sites have been selected to enable flow adjustment for the Abernyte Burn; the Garry Burn at Loakmill and the Crimple at Burn Bridge. The catchment of the Garry Burn at Loakmill is within the pooling group selected by the WINFAP-FEH analysis, and from previous discussions with SEPA, the gauge at Loakmill is understood to produce satisfactory results. The Crimple at Burn Bridge is top of the pooling group compiled by the WINFAP-FEH software.

For the Garry Burn at Loakmill, WINFAP-FEH calculations give a value of QMED of 7.345m³/s using gauged flow values at that site (Annual Maxima), and 5.894m³/s using catchment descriptors, i.e. a ratio of 1.25.

For the Crimple at Burn Bridge, WINFAP-FEH calculations give a value of QMED of 4.61m³/s using gauged flow values at that site (Annual Maxima), and 4.126m³/s using catchment descriptors, i.e. a ratio of 1.117.

The above results provide an average correction factor of 1.184.

Applying this ratio to the QMED value derived for the subject site in section 4.1 (1.638m³/s), the adjusted QMED value for the Abernyte Burn at the site becomes 1.939m³/s.

4.1.3 Flood Growth Curves

In order to estimate the magnitude of the range of possible statistical flood events which will occur in this catchment, for example the flood that will statistically occur once in 100 years (the flood flow which has a 1% chance of occurring in any one year), the flood which will occur once in 200 years (the 0.5% flood) etc., it is necessary to determine a flood growth curve and a flood frequency curve. This is done by forming a "Pooling Group", i.e. by selecting a group of other catchments across the UK which have very similar characteristics to the subject site and which have existing gauged flow records covering a statistically adequate number of years, and subjecting this group to statistical analysis.

The catchment descriptors from the FEH CD-ROM are entered as a data file to the WINFAP software, which collates a pooling group of similar catchments, subjects these to a statistical analysis, and calculates a range of flows representing floods of different probabilities at the subject site.

The results can vary slightly, depending upon the chosen weighting of the statistical analysis, but adopting the recommended "Generalised Logistic" (GL) technique, the watercourse flow results are as follows:

Return Period	Flow (m ³ /s)
Q200	7.449
Q200+20%	8.939

Table 4.1 Flow calculation results using FEH Statistical Method

The data and results for the WINFAP growth curve derivations are shown in Appendix A.

4.2 FEH Rainfall Runoff Method

As noted in Section 4.0 above, flood flows in the Abernyte Burn at the location of the site have also been estimated using the FEH Rainfall Runoff Method. The Rainfall Runoff Method relies on plentiful rainfall records rather than sometimes scarce river flow records. Hence, if catchment characteristics are known or estimated,

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the method converts the theoretical design rainfall event of a known return period into a design flood event, with a peak of a known return period.

By selecting the catchment on the FEH CD-ROM, the catchment descriptors unique to the catchment can be established (please refer to Figure 2 for catchment descriptors for the Abernyte Burn at the site). Also, by selecting the catchment the design rainfall for the catchment can be established as the software determines the depth-duration-frequency (DDF) relationships for the catchment.

The catchment descriptors are subsequently entered into the ISIS Routing software to produce a hydrograph showing the peak flow rate during a specified flood return period. A storm duration is also required, and involves trial and error to determine the duration of the peak flow.

We have calculated the flow for the Abernyte Burn using the relevant software and the results are as follows (see ISIS output, Appendix B):

Return Period	Flow (m ³ /s)	
Q200	11.87	
Q200+20%	14.24	

Table 4.1 Flow calculation results using the Rainfall Runoff Method

4.3 Applicable Flowrate

Two different flow estimation methods have been described above, each predicting different flood flow rates for the Abernyte Burn at the site. To ensure adherence with SEPA's "precautionary principle" the largest estimated flowrate will be used in the hydraulic model. Hence the results in Section 5.0 have been predicted using the flowrates estimated using the FEH Rainfall Runoff Method, in Section 4.2, above.

5.0 Estimation of Flood Levels

5.1 Initial Model

Having estimated the flood flows in the watercourse adjacent to the site, it is necessary to analyse the watercourse channel to see what level the floodwater would reach during the critical 0.5% annual probability flood event.

The watercourse between the sections is analysed using the HEC-RAS river analysis software, which is generally recognised by the relevant authorities as producing verifiable results. The watercourse has been surveyed on site over the length adjacent to the site and for some distance upstream and downstream (see drawing 12894/21/001).

Manning's n coefficients were selected for the site based on inspection of existing conditions, and comparison with tabulated descriptors in tables of Manning's values. Hence the following were selected:

- Main channels: Clean, straight, full, no rifts or deep pools, but more stones and weeds (normal
 value of n = 0.035); Clean, winding, some pools and shoals (normal value of n = 0.04)
- Flood plains: smooth asphalt (normal value of n = 0.013); high grass (normal value of n = 0.035); mature field crops (normal value of n = 0.04); scattered brush, heavy weeds (normal value of n = 0.05); light brush and trees, in summer (normal value of n = 0.06); heavy stand of timber, few down trees, little undergrowth, flow below branches (normal value of n = 0.1)

In addition to suitable Manning's n values, appropriate boundary conditions at the downstream and upstream ends of the modelled length were selected. For both the upstream and downstream ends of the model, the boundary conditions were set based on normal depth commensurate with the average channel gradients at each end.

The hydraulic model has been prepared with a single reach being modelled. All three culverts have been included in the model.

Results of the analysis are contained in Appendix C.

The table below provides the results of the initial analysis, showing the level of the 0.5% (Q200) flood, using the flood flow derived above:

Location	Flood Level (m AOD)
Section 1	82.92
Section 2	83.96
Section 2.1 D	84.7
Section 2.1 U	86.8
Section 3	86.94
Section 3.1	86.94
Section 3.2	86.94
Section 4	86.95
Section 4.5	86.89
Section 4.6 D	86.89
Section 4.6 U	86.96
Section 5	86.96
Section 6	86.98
Section 7	87.73
Section 8	88.5
Section 9	89.44
Section 9.5	90.17
Section 9.6 D	90.75
Section 9.6 U	90.99
Section 10	90.97
Section 10.5	91.54
Section 11	92.97

Table 5.1 - Q200 Flood Levels (Flow = $11.9m^3/s$)

The analysis shows that floodwater would build up upstream of the culvert at Section 9.6 and flow over the B953, potentially to a maximum depth of 0.4m. The overland flow would rejoin the watercourse immediately downstream of the culvert. As it passes through the site, the model shows flooding on both the right and left bank of the watercourse at various locations along the modelled length, while the downstream culverts cause constrictions to flow and therefore influence predicted flood levels. The model predicts a maximum flood depth of 0.85m above the existing access culvert, while a shallower overland flow of approximately 0.3m is predicted to flow over the culvert at the downstream end of the pond.

The hydraulic model does not predict flooding on the site of the proposed house, however the main route of vehicular access to the site would be cut off during a 1 in 200 year flood event. Emergency pedestrian access would be possible to the west of the site, along the southern boundary of the adjacent field, which would link up with the B953 a short distance west of the culvert below the B953.

Appendix C contains details of the HECRAS analysis, including plots of the watercourse cross-sections and the water surface levels appropriate to the values above.

5.2 Sensitivity Analysis

Sensitivity analyses were carried out to check the effect of a variation in flow rate, of variation in Manning's 'n' values, and of variation on downstream boundary condition.

The values of height versus flowrate shown below relate to the water surface profile for all the cross sections modelled.

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Location	Leve	l (m)	Variation in level
	Flow = Q200 + 5%	Flow = Q200 - 5%	(m)
Section 1	82.96	82.89	0.07
Section 2	83.98	83.94	0.04
Section 2.1 D	84.73	84.65	0.08
Section 2.1 U	86.81	85.36	1.45
Section 3	86.95	86.94	0.01
Section 3.1	86.95	86.94	0.01
Section 3.2	86.95	86.94	0.01
Section 4	86.96	86.95	0.01
Section 4.5	86.89	86.89	0
Section 4.6 D	86.89	86.89	0
Section 4.6 U	86.98	86.97	0.01
Section 5	86.98	86.97	0.01
Section 6	87.01	86.99	0.02
Section 7	87.74	87.70	0.04
Section 8	88.52	88.48	0.04
Section 9	89.46	89.43	0.03
Section 9.5	90.18	90.17	0.01
Section 9.6 D	90.75	90.73	0.02
Section 9.6 U	91.00	90.98	0.02
Section 10	90.98	90.96	0.02
Section 10.5	91.56	91.52	0.04
Section 11	93.00	92.95	0.05

Table 5.2 Sensitivity Analysis: Variation in Flowrate

The above table indicates that flood levels in the vicinity of the site are heavily influence by the structures along its length. This is demonstrated by the very small variations in predicted flood level with a flow variation of 10%. The exception in this case is Section 2.1 U, which shows a large variation in predicted flood level, as the Q200-5% flow does not show any overtopping of the culvert. This however does not affect predicted flood levels at the proposed development site.

As discussed above, sensitivity of the model to changes in Manning's n were tested, by increasing and decreasing the initial (normal) values by 0.005. This was carried out for all cross sections.

Location	Leve	Variation in level	
	n + 0.005	n - 0.005	(m)
Section 1	82.92	82.92	0
Section 2	83.96	83.96	0
Section 2.1 D	84.70	84.70	0
Section 2.1 U	86.80	86.80	0
Section 3	86.93	86.94	0
Section 3.1	86.93	86.94	0
Section 3.2	86.93	86.94	0
Section 4	86.95	86.95	0
Section 4.5	86.88	86.89	0.01
Section 4.6 D	86.88	86.89	0.01
Section 4.6 U	86.97	86.96	0.01
Section 5	86.97	86.96	0.01
Section 6	87.00	86.98	0.02
Section 7	87.72	87.73	0.01
Section 8	88.56	88.43	0.13
Section 9	89.44	89.44	0
Section 9.5	90.17	90.17	0
Section 9.6 D	90.74	90.75	0.01
Section 9.6 U	91.01	90.96	0.05
Section 10	90.99	90.93	0.06
Section 10.5	91.54	91.55	0.01
Section 11	92.97	92.98	0.01

Table 5.3 Sensitivity Analysis: Variation in Manning's n (Using Q200 Flowrate)

The above indicates no significant variation in levels with variation in Manning's n. Again, this is expected due to the influence of structures within the modelled reach, on predicted flood levels.

As discussed above, sensitivity of the model to changes in the downstream boundary conditions were tested, by increasing the initial gradient by 0.1.

Location	Leve	Variation in level	
	Initial Gradient (Q200 Flowrate) (m)	Gradient + 0.1 (Q200 Flowrate) (m)	(m)
Section 1	82.92	82.92	0
Section 2	83.96	83.96	0
Section 2.1 D	84.7	84.70	0
Section 2.1 U	86.8	86.80	0
Section 3	86.94	86.94	0
Section 3.1	86.94	86.94	0
Section 3.2	86.94	86.94	0
Section 4	86.95	86.95	0
Section 4.5	86.89	86.89	0
Section 4.6 D	86.89	86.89	0
Section 4.6 U	86.96	86.96	0
Section 5	86.96	86.96	0
Section 6	86.98	86.98	0
Section 7	87.73	87.73	0
Section 8	88.5	88.50	0
Section 9	89.44	89.44	0
Section 9.5	90.17	90.17	0
Section 9.6 D	90.75	90.75	0
Section 9.6 U	90.99	90.99	0
Section 10	90.97	90.97	0
Section 10.5	91.54	91.54	0
Section 11	92.97	92.97	0

Table 5.4 Sensitivity Analysis: Variation in Downstream Boundary Conditions (Using Q200 Flowrate)

The above indicates that the model is not sensitive to changes in downstream boundary gradient.

5.3 Predicted Flood Levels including Culvert Blockage

The potential for culvert blockage in the vicinity of the site has been assessed at two locations; the culvert below the B953 upstream of the site, and the pipe culverts below the access track a short distance downstream of the site. A blockage of 50% has been modelled at the inlet to the upstream culvert, while two of the pipes below the access track (the largest pipe and one of the smaller pipes) have been removed from the model, reflecting their full blockage. The results of this additional analysis are shown in the below tables. The analysis has been undertaken using the Q200 flowrate.

Location	Leve	ıl (m)	Variation in level
	Q200 Flood Level	Q200 Flood Level with 50% Blockage of Culvert Below B953	(m)
Section 1	82.92	82.92	0
Section 2	83.96	83.96	0
Section 2.1 D	84.7	84.7	0
Section 2.1 U	86.8	86.8	0
Section 3	86.94	86.94	0
Section 3.1	86.94	86.94	0
Section 3.2	86.94	86.94	0
Section 4	86.95	86.95	0
Section 4.5	86.89	86.89	0
Section 4.6 D	86.89	86.89	0
Section 4.6 U	86.96	86.96	0
Section 5	86.96	86.96	0
Section 6	86.98	86.98	0
Section 7	87.73	87.73	0
Section 8	88.5	88.50	0
Section 9	89.44	89.44	0
Section 9.5	90.17	90.17	0
Section 9.6 D	90.75	90.75	0
Section 9.6 U	90.99	90.99	0
Section 10	90.97	90.97	0
Section 10.5	91.54	91.54	0
Section 11	92.97	92.97	0

Table 5.5 Assessing Impact of 50% Blockage of B953 Culvert on Q200 Flood Levels

The above table shows that a 50% blockage of the inlet to the culvert below the B953 would have no significant effect on Q200 flood levels. This is likely due to the significant overland flow which would occur over the B953 at this location.

Location	Leve	el (m)	Variation in level
	Q200 Flood Level	Q200 Flood Level with 100% Blockage of 0.6m Dia. Pipe and One 0.48m Dia. Pipe Below Existing Access Track	(m)
Section 1	82.92	82.92	0
Section 2	83.96	83.96	0
Section 2.1 D	84.7	84.7	0
Section 2.1 U	86.8	86.8	0
Section 3	86.94	86.94	0
Section 3.1	86.94	86.94	0
Section 3.2	86.94	86.94	0
Section 4	86.95	86.95	0
Section 4.5	86.89	86.89	0
Section 4.6 D	86.89	86.89	0
Section 4.6 U	86.96	86.97	0.01
Section 5	86.96	86.97	0.01
Section 6	86.98	87.00	0.02
Section 7	87.73	87.73	0
Section 8	88.5	88.50	0
Section 9	89.44	89.44	0
Section 9.5	90.17	90.17	0
Section 9.6 D	90.75	90.75	0
Section 9.6 U	90.99	90.99	0
Section 10	90.97	90.97	0
Section 10.5	91.54	91.54	0
Section 11	92.97	92.97	0

Table 5.6 Assessing impact of full blockage of 0.6m diameter pipe and one 0.48m dia.

pipe below existing access track

The above table demonstrates that the full blockage of two pipes below the existing access track would have little impact on predicted flood levels. Again this is likely due to the significant flow predicted over the track.

5.4 Predicted Flood Levels including Climate Change

The potential impact of climate change on predicted flood levels has been assessed by adding an additional 20% onto the 1 in 200 year flood flow and re-running the hydraulic model. The predicted variation in flood levels with the inclusion of an allowance for climate change is indicated in Table 5.6 below.

Location	Level	(m)	Variation in level
	Q200 Flood Level	Q200 + 20% Flood Level	(m)
Section 1	82.92	83.06	0.14
Section 2	83.96	84.04	0.08
Section 2.1 D	84.7	84.85	0.15
Section 2.1 U	86.8	86.84	0.04
Section 3	86.94	86.98	0.04
Section 3.1	86.94	86.99	0.05
Section 3.2	86.94	86.99	0.05
Section 4	86.95	87.01	0.06
Section 4.5	86.89	86.92	0.03
Section 4.6 D	86.89	86.93	0.04
Section 4.6 U	86.96	87.02	0.06
Section 5	86.96	87.02	0.06
Section 6	86.98	87.05	0.07
Section 7	87.73	87.81	0.08
Section 8	88.5	88.58	0.08
Section 9	89.44	89.50	0.06
Section 9.5	90.17	90.19	0.02
Section 9.6 D	90.75	90.78	0.03
Section 9.6 U	90.99	91.03	0.04
Section 10	90.97	91.01	0.04
Section 10.5	91.54	91.69	0.15
Section 11	92.97	93.04	0.07

Table 5.7 Comparison between Predicted Q200 and Q200 + 20% Flood Levels

As can be seen from the above table, there is a limited variation in predicted flood level with an additional flow of 20%.

6.0 Proposed Mitigation and Management of Flood Risk

The results of the flow modelling exercise discussed in Section 5 are summarised in drawing 12584/21/001. The results indicate that although some of the proposed site is within the Q200 flood envelope, the proposed house is fully outwith the functional floodplain.

It is understood that normal vehicular access to the new property would be via the existing track under which the Abernyte Burn is culverted by three pipes. It is predicted that this track would flood during a 1 in 200 year flood event and be impassable. Safe pedestrian access would however be maintained throughout a 1 in 200 year flood event with a safe route to the B953 available along the southern boundary of the adjacent field to the north. A vehicular access is taken from the B953 into this field currently, which would enable pedestrians to reach the B953 without any impediment.

The new house should have a minimum finished floor level of 88.41m. This level provides a freeboard of 0.6m above the adjacent Q200 + 20% flood level.

As standard, no ground levels within the 1 in 200 year floodplain of the Abernyte Burn should be raised as part of the proposed development. It is also recommended that no ground levels on site, certainly in the vicinity of the new house, are lowered as part of the development. This will ensure dry access around the new building will be maintained.

In order to avoid any increase in flood risk, surface water runoff generated by the site should be dealt with following the principals of Sustainable Urban Drainage Systems.

7.0 Conclusions

It is concluded that the development proposals are satisfactory with regards to flood risk. The proposed building is outwith the 1 in 200 year flood envelope of the Abernyte Burn, while safe pedestrian access/egress to and from site will be maintained during a 1 in 200 year flood event.

The finished floor level of the proposed building should be set at, or above a level of 88.41m AOD. This level provides a freeboard of 0.6m above the 1 in 200 year flood level, including an additional allowance of 20% for climate change.

We have used our best engineering judgement in this Assessment, and our calculations have been carried out using the Flood Estimation Handbook, WINFAP, HEC-RAS and other standard hydrological methods. We note that as with all such Flood Risk Assessments the accuracy of the results is only as good as the data and statistical techniques used.

8.0 References

- i. Flood Estimation Handbook, Duncan Reed, CEH Institute of Hydrology, Wallingford, 1999.
- ii. FEH CD-ROM, Version 3, CEH Institute of Hydrology, Wallingford, 2009.
- iii. WINFAP-FEH, Version 3, Wallingford Hydrosolutions and NERC, 2009
- iv. HEC-RAS, Version 4.0, March 2008, US Army Corps of Engineers Hydrologic Engineering Centre.
- v. UK Climate Projections for UK Climate Impacts Programme, July 2009.
- vi. Scottish Planning Policy, Scottish Government, Crown Copyright, February 2010
- vii. Planning Advice Note 69: Planning and Building Standards Advice on Flooding, Scottish Executive, 2004

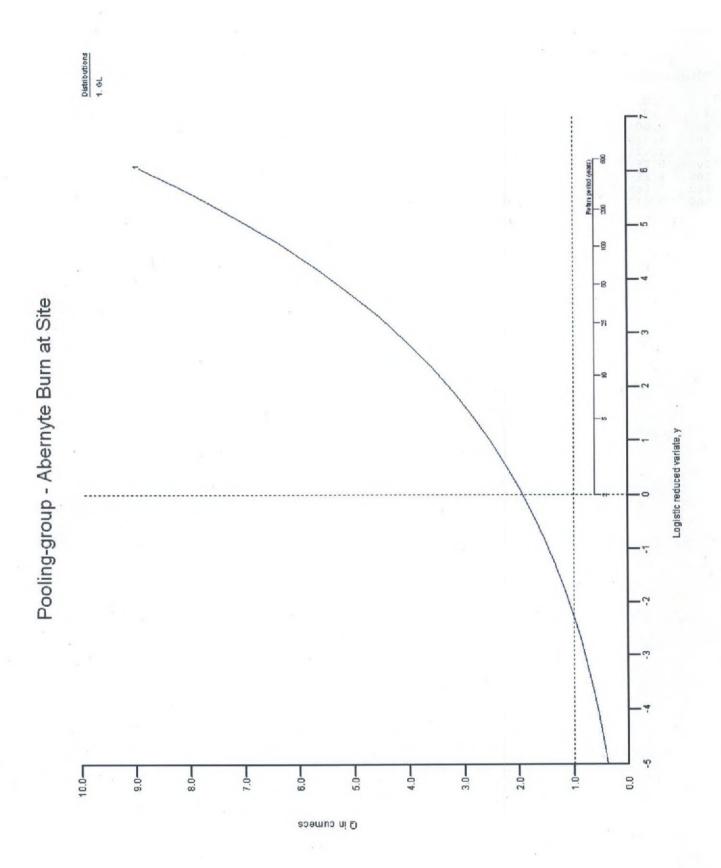
Appendix A: Results from WINFAP-FEH Flow Analysis

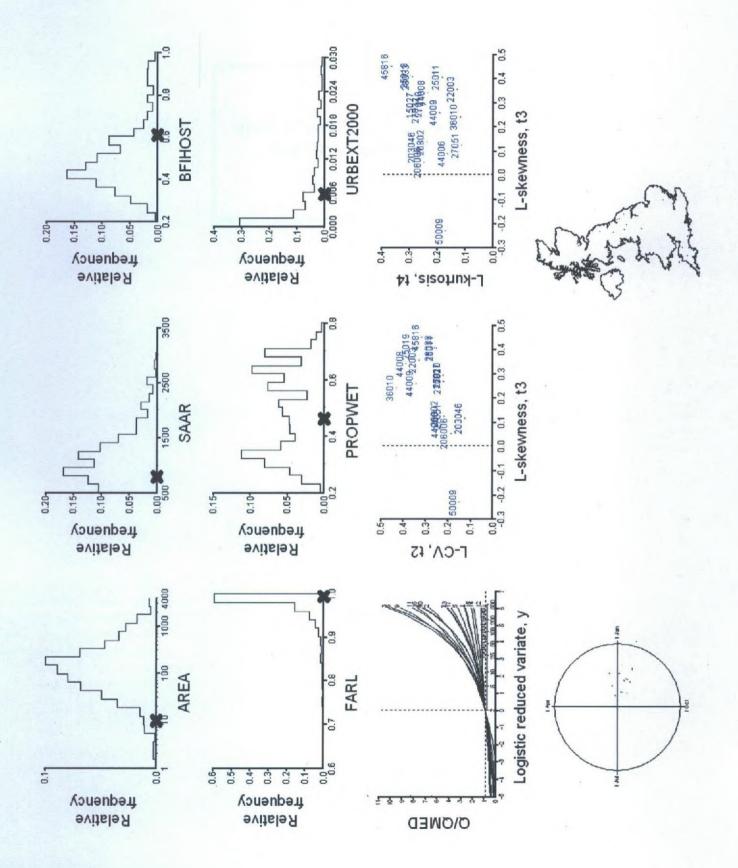
Institute of Hydrology - Flood Peaks Database Printed : 5 June 2014 Station : 999200 (Abernyte Burn)

Fittings for FFC

Standardised by median

Retur	n periods
	GL
2	1.939
5	2.801
10	3.451
25	4.421
50	5.281
100	6.280
200	7.449
500	9.309





Appendix B: Results from ISIS Flow Analysis

ISIS VER=

```
6.6.0.81
       **************
ISIS
HYDROLOGICAL DATA
Catchment: Abernyte
                    ********
Catchment Characteristics
                         **********
                    326450 Northing
9.640 km2
                                         : 730950
 Easting
Area
                     2.920 km
 DPLBAR
DPSBAR
                   121.800 m/km
                   0.460
783.000 mm
 PROPWET
 SAAR
                    0.001
 Urban Extent
                    -0.017
 d1
                     0.470
                     0.405
 d2
 d3
                     0.256
                     0.252
 e
                     2.197
 f
                    29.360 %
 SPR
 Summary of estimate using Flood Estimation Handbook rainfall-runoff method
 Estimation of T-year flood
                                     2.682 hours
2.632 hours
 Unit hydrograph time to peak
 Instantaneous UH time to peak
 Data interval
                                     0.100 hours
                                     4.700 hours
 Design storm duration
                                     4.782 hours
 Critical storm duration
                                   200.000 years
246.667 years
 Return period for design flood
 requires rain return period
                                     0.951
 ARF
 Design storm depth
                                    61.397 mm
                                   113.960
 CWI
                                    29.360 %
 Standard Percentage Runoff
 Percentage runoff
                                    30.453 %
                                     0.000 mm/day
 Snowmelt rate
 Unit hydrograph peak
                                     0.791 (m3/s/mm)
                                    11.675 m3/s
 Quick response hydrograph peak
                                     0.192 m3/s
 Baseflow
 Baseflow adjustment
                                     0.000 \, \text{m}3/\text{s}
                                    11.867 m3/s
 Hydrograph peak
 Hydrograph adjustment factor
                                     1.000
 Flags
 Unit hydrograph flag
                                : FSRUH
                                : FEHTP
 Tp flag
 Event rainfall flag
Rainfall profile flag
Percentage Runoff flag
                                : FEHER
                                : WINRP
                                : FEHPR
 Baseflow flag
                                : F16BF
 CWI flag : FSRCW
```

```
6.6.0.81
      Catchment: Abernyte
*************
Rainfall Profile - Unit and Flow Hydrograph Using
FEH rainfall-runoff method
                          ********
                                    1.000
Hydrograph adjustment factor =
                                    _____
TABULAR RESULTS
              areal
                                                   flow.
                         net
                                     unit
      time
                         rainfall
              rainfall
                                     hydrograph
                                                   hydrograph
   (hours)
                                      (m3/s/mm)
               (mm)
                         (mm)
                                                   (m3/s)
               0.255
                                      0.000
                         0.078
     0.000
                                                   0.192
               0.288
                         0.088
     0.100
                                                   0.194
     0.200
                         0.099
               0.325
                                      0.059
                                                   0.199
                                      0.088
                         0.112
     0.300
               0.367
                                                   0.207
     0.400
               0.414
                         0.126
                                                   0.218
     0.500
               0.467
                         0.142
                                      0.147
                                                   0.233
                                      0.177
     0.600
               0.526
                         0.160
                                                   0.252
               0.593
     0.700
                         0.181
                                                   0.275
                                      0.236
     0.800
               0.671
                         0.204
                                                   0.304
                         0.230 0.259
     0.900
               0.755
                                      0.265
0.295
                                                   0.340
     1.000
               0.851
                                                   0.381
                                      0.324
               0.958
     1.100
                         0.292
                                                   0.431
     1.200
                                      0.354
               1.078
                         0.328
                                                   0.489
     1.300
                                                   0.557
               1.212
                         0.369
                                      0.383
     1.400
               1.362
                         0.415
                                      0.413
                                                   0.635
     1.500
                         0.467
               1.532
                                      0.442
                                                   0.726
               1.723
1.933
                         0.525
                                      0.472 0.501
                                                   0.831 0.951
     1.600
     1.700
     1.800
               2.165
2.422
2.703
                         0.659
                                      0.531
                                                   1.088
                         0.738
                                      0.560
     1.900
                                                   1.245
     2.000
                         0.823
                                                   1.424
     2.100
               3.006
                         0.915
                                      0.619
                                                   1.627
     2.200
               3.333
3.517
                         1.015
                                      0.649
                                                   1.857
                         1.071
                                      0.678
                                                   2.117
                                      0.708
     2.400
               3.333
                         1.015
                                                   2.408
               3.006
2.703
                         0.915
     2.500
                                      0.737
                                                   2.729
     2.600
                         0.823
                                      0.767
                                                   3.078
     2.700
               2.422
                         0.738
                                      0.787
                                                   3.450
     2.800
                                      0.768
                                                   3.839
               2.165
                         0.659
               1.933
                         0.589
                                      0.748
                                                   4.244
                                     0.729
     3.000
               1.723
                         0.525
                                                   4.661
                         0.467
     3.100
               1.532
                                      0.710
                                                   5.089
      3.200
                         0.415
               1.362
                                      0.690
                                                   5.523
     3.300
               1.212
                         0.369
                                      0.671
                                                   5.963
               1.078
0.958
     3.400
                                                   6.405
                         0.328
                                      0.651
     3.500
                         0.292
                                      0.632
                                                   6.849
     3.600
               0.851
                         0.259
                                      0.613
                                                   7.290
```

3.700

3.800

3.900

4.000

4.100

4.200

4.300

4.400

4.500

4.600

4.700

4.800

4.900

0.755

0.671

0.593

0.526

0.467

0.414

0.367

0.325

0.288

0.230

0.204

0.181

0.160

0.142

0.126

0.112

0.099

0.088

0.078

Page 1

0.593

0.574

0.555

0.535

0.516

0.496

0.477

0.458

0.438

0.419

0.399

0.380 0.361

7.728

8.159

8.582

8.994 9.393 9.774

10.136

10.476

10.788

11.071

11.318

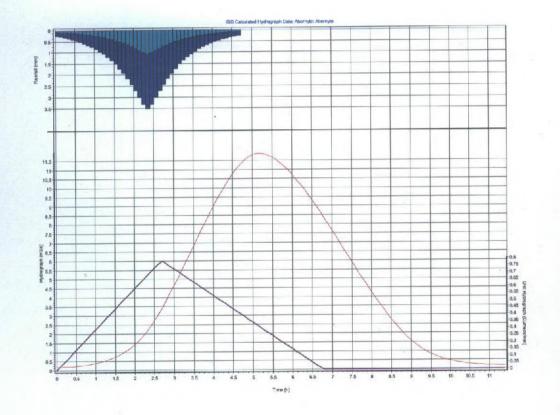
11.525

11.686

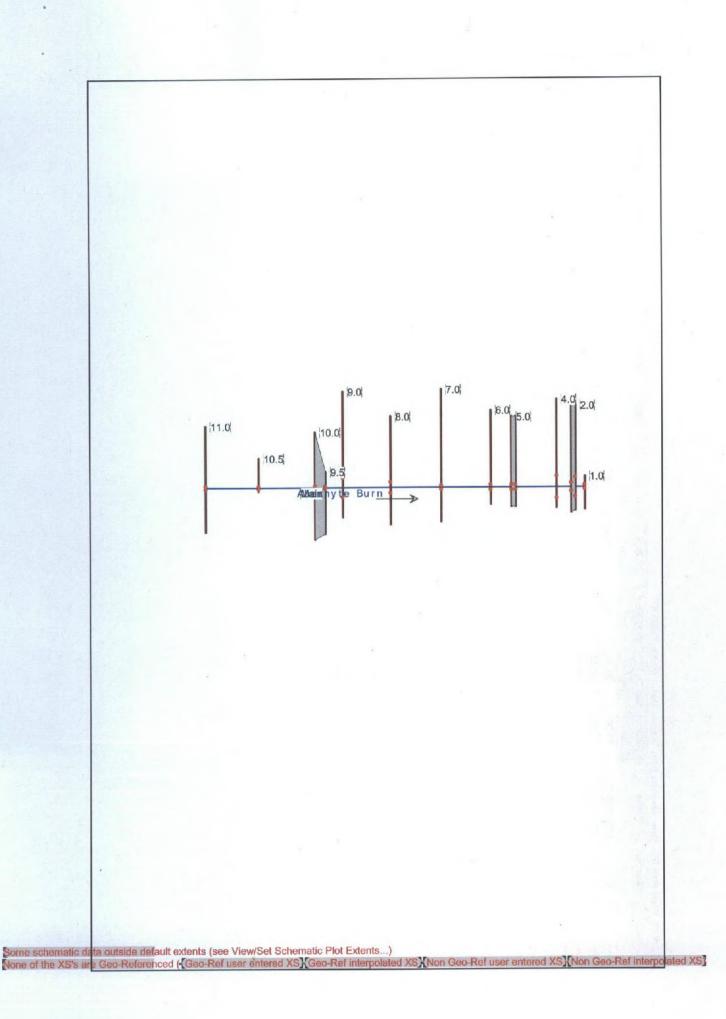
		Q200	Hydrograph		
5.000			0.341	11.797	
5.100			0.322	11.857	
5.200			0.302	11.867	
5.300			0.283		
5.400			0.264	11.761 11.653	
5.500			0.244	11.513	
5.600			0.205		
5.700			0.186		
5.800			0.167		
5.900 6.000			0.147		
6.100			0.128	10.447	
6.200			0.108		
6.300			0.089		
6.400			0.070	9.600	
6.500			0.050		
6.600			0.031		
6.700			0.011		
6.800			0.000	8.321	
6.900	-			7.984	
7.000				7.643	
7.100				7.298 6.951	
7.200				6.602	
7.300 7.400				6.254	
7.500				5.908	
7.600				5.566	
7.700				5.228	
7.800				4.895	
7.900				4.567	
8.000				4.246	
8.100				3.930	
8.200				3.623	
8.300				3.324 3.034	
8.400				2.755	
8.500				2.488	2
8.600				2.235	
8.800				1.996	
8.900				1.774	1
9.000				1.571	
9.100				1.388	
9.200				1.225	
9.300				1.081	
9.400				0.954	
9.500				0.842 0.745	
9.600				0.659	
9.700				0.584	
9.800				0.519	
10.000				0.462	2
10.100				0.414	1
10.200				0.372	2
10.300				0.336)
10.400				0.305)
10.500				0.280	2
10.600				0.240	
10.700				0.226	
10.800	4			0.215	
11.000				0.206	
11.100				0.200)
11.200				0.195	
11.300				0.193	3
11 400				0.192	2
****			****	*****	THE
lumetric anal	ysis of r	esults			

Page 2

				Q200	Hydrograph	Data.txt	
			rainfall	:		591866.0	m3
Total	volume	of	net rainfal	1 :		180242.7	m3
			rain loss	:		411623.4	m3
			baseflow	:		7942.7	m3
			quick runof	f :		179859.4	m3
Total	volume	of	runoff	:		187802.1	m3

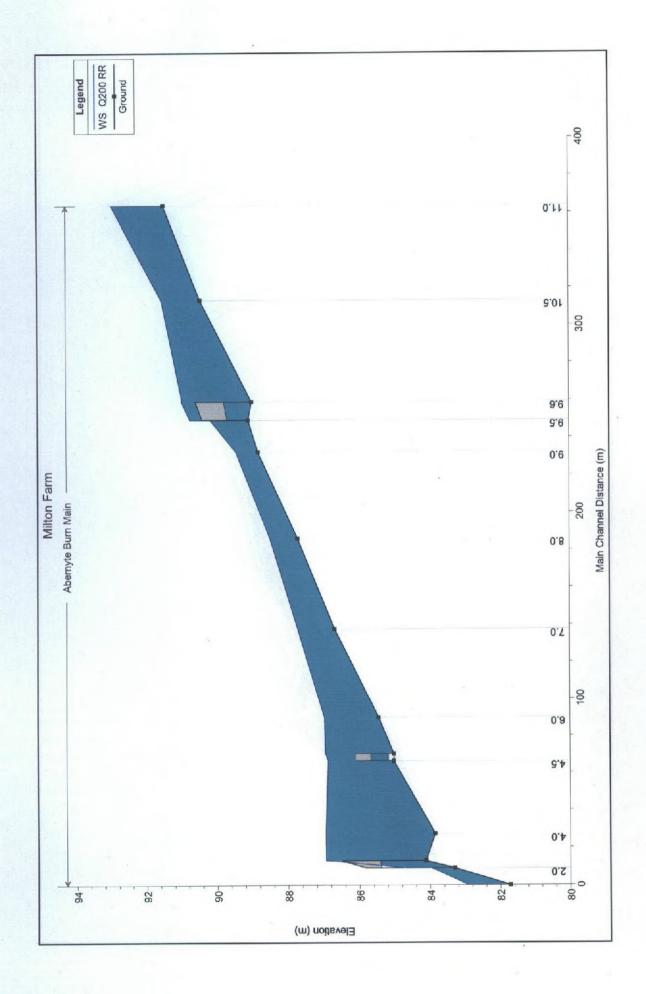


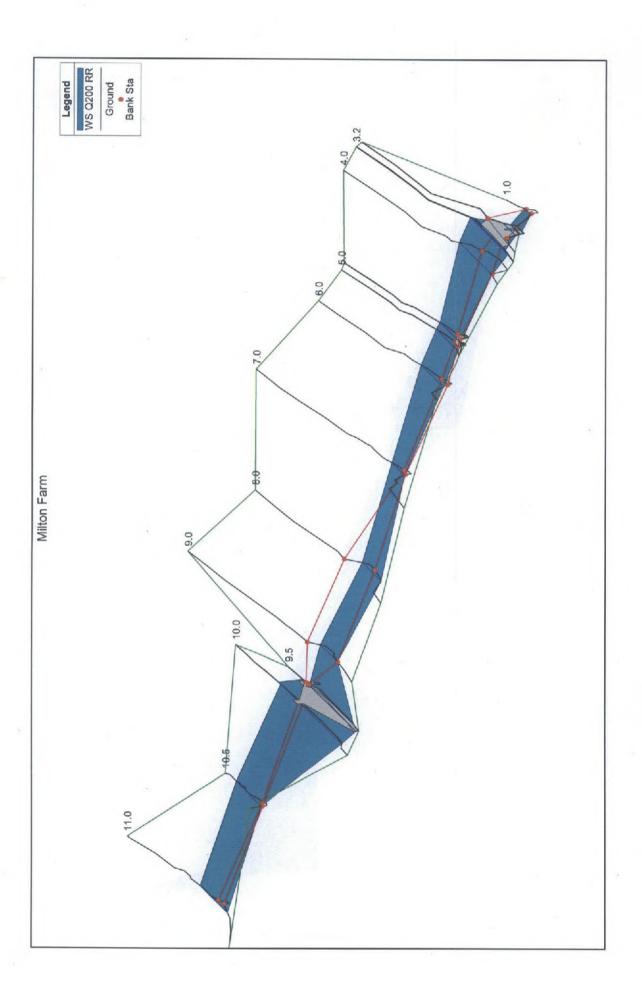
Appendix C: Output from HEC-RAS Model

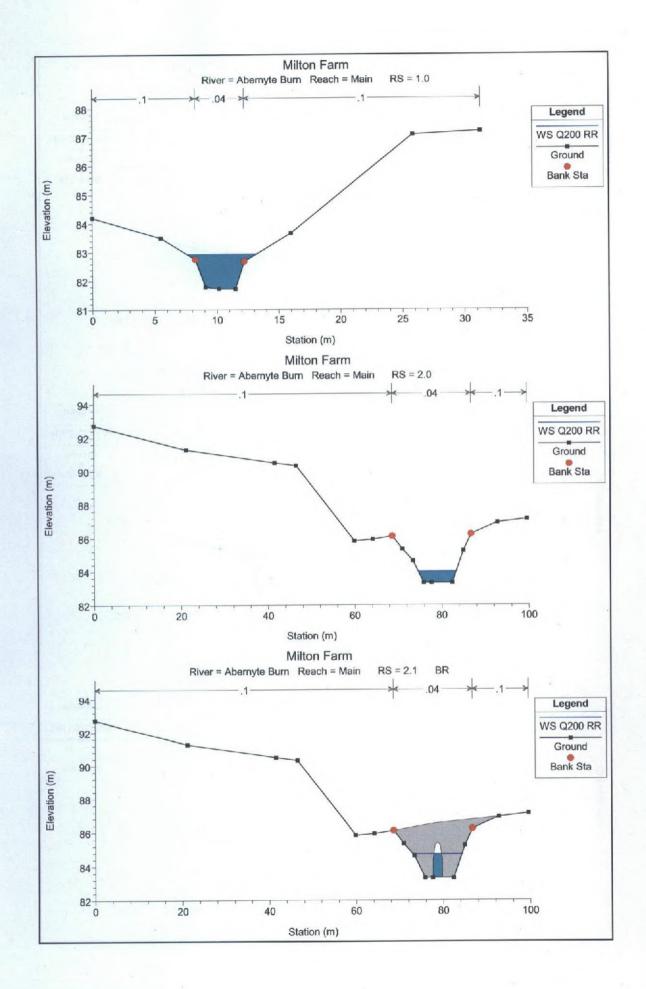


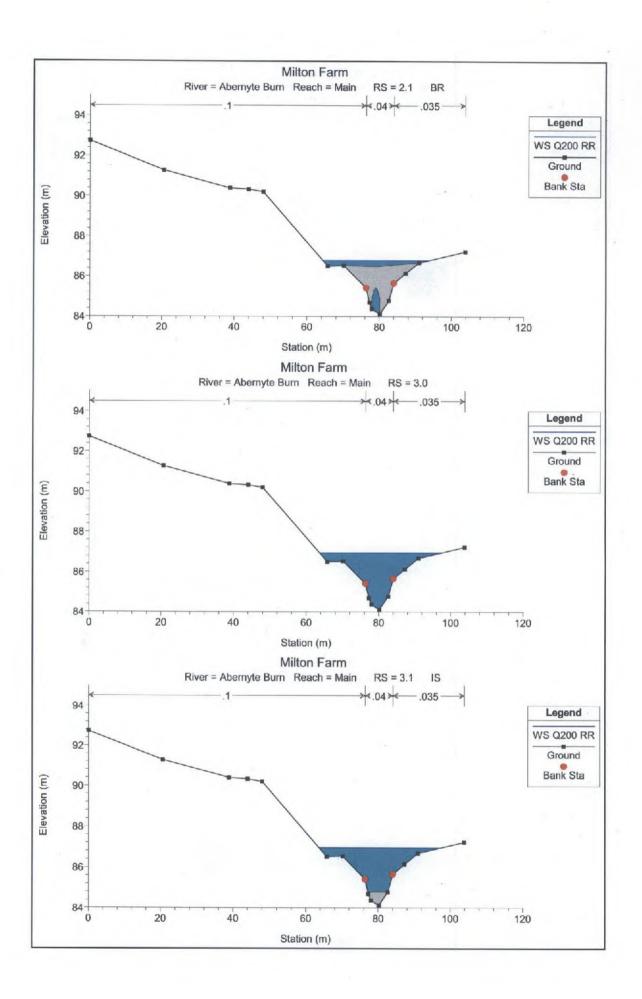
0.95 1.01 0.89 0.04 1.01 0.11 Vel Chnl Flow Area Top Width Froude # Chi 24.49 21.36 54.71 36.51 15.66 16.83 11.34 20.06 19.51 18.36 29.23 33.40 8.68 33.32 (E) 8.12 7.17 6.05 8.28 60.9 14.45 4.99 4.08 17.97 13.59 12.25 64.37 32.15 32.24 (m₂) 2.78 2.31 1.97 1.84 2.62 1.17 2.39 1.41 1.10 0.21 0.54 0.54 (m/s) Q Total Min Ch El W.S. Elev Crit W.S. E.G. Elev E.G. Slope 0.006747 0.016309 0.010856 0.014916 0.022376 0.001599 0.001413 0.002772 0.000172 0.020213 0.019752 0.002598 0.013987 0.000021 0.000171 (m/m) 93.17 91.78 91.03 90.28 89.64 88.64 88.01 87.04 86.98 86.95 86.95 84.25 83.39 87.01 86.95 (E) 91.54 85.17 83.96 92.97 90.50 90.17 89.44 87.73 86.38 85.17 82.92 (E) 91.54 92.97 89.44 88.50 86.89 86.95 83.96 90.97 90.17 87.73 86.98 86.96 86.94 86.94 (E) 90.45 91.49 89.00 88.82 87.72 86.68 85.03 85.03 83.86 85.46 83.30 81.72 84.12 84.12 (E) 11.90 11.90 11.90 Bridge 11.90 11.90 11.90 11.90 11.90 11.90 Culvert 11.90 11.90 11.90 11.90 11.90 Inl Struct (m3/s) River Sta Profile O200 RR O200 RR O200 RR Q200 RR 10.5 11.0 10.0 9.6 9.5 8.0 2.0 6.0 4.6 4.5 4.0 3.2 3.1 2.1 Reach Main Main

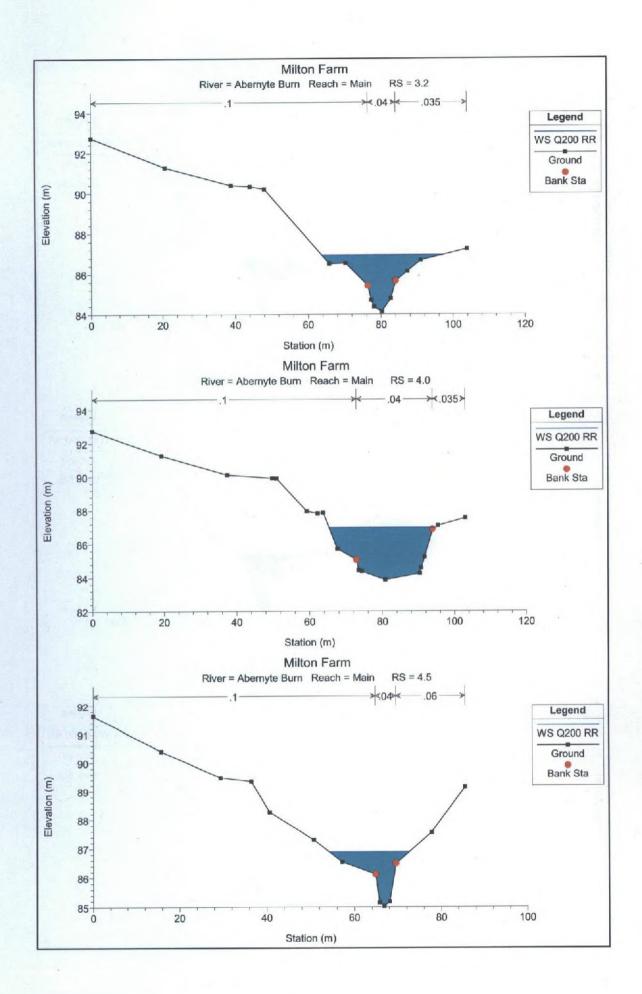
HEC-RAS Plan: Plan 06 River: Abernyte Burn Reach: Main Profile: Q200 RR

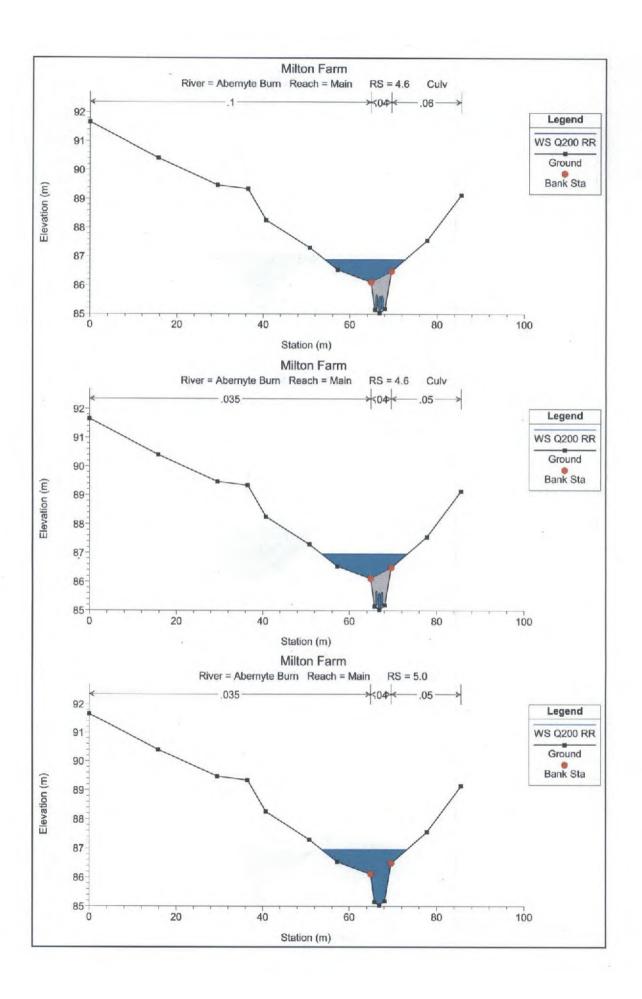


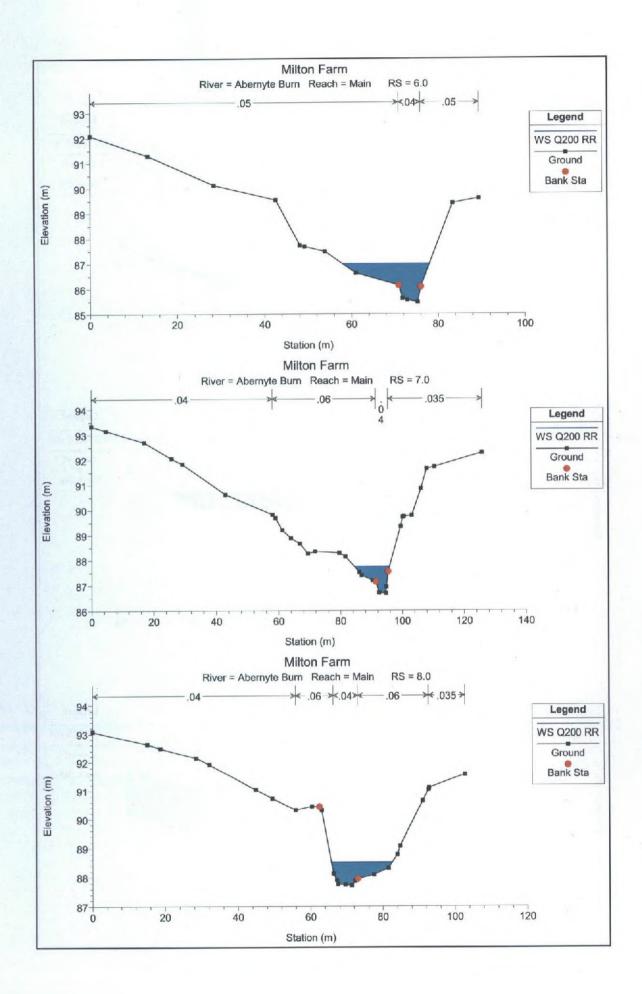


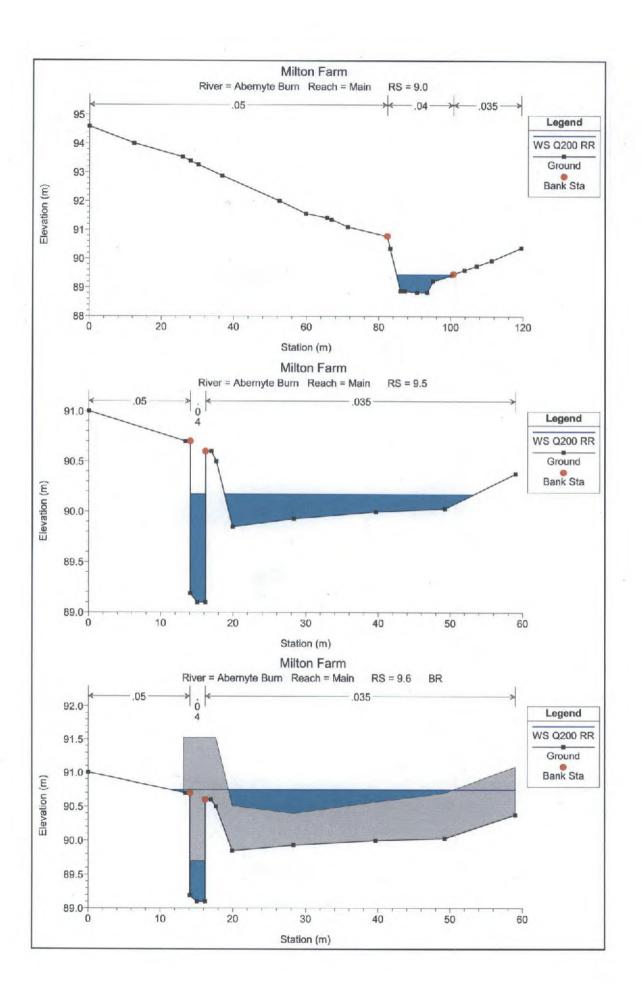


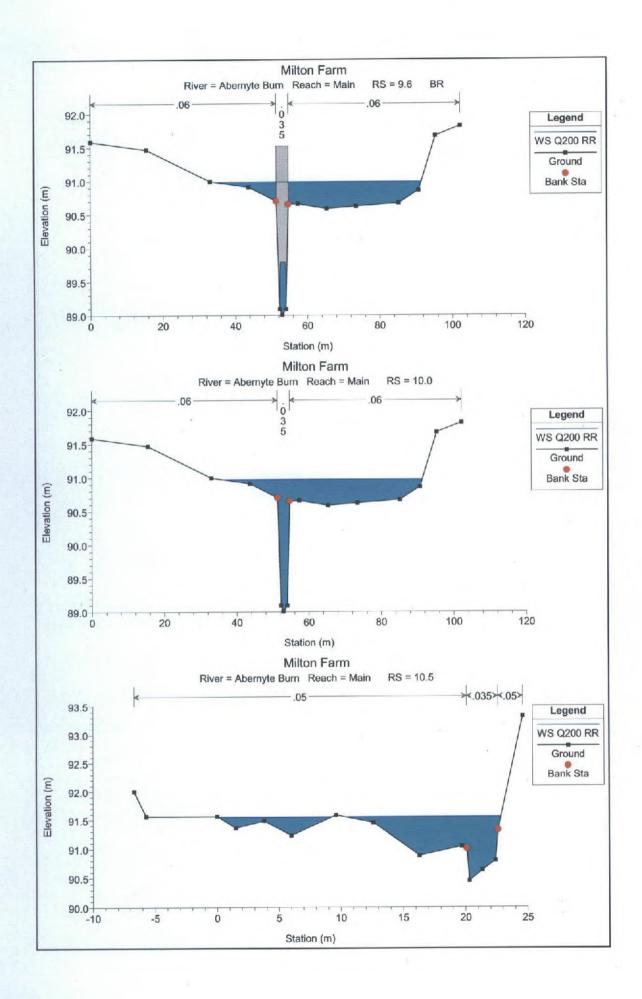


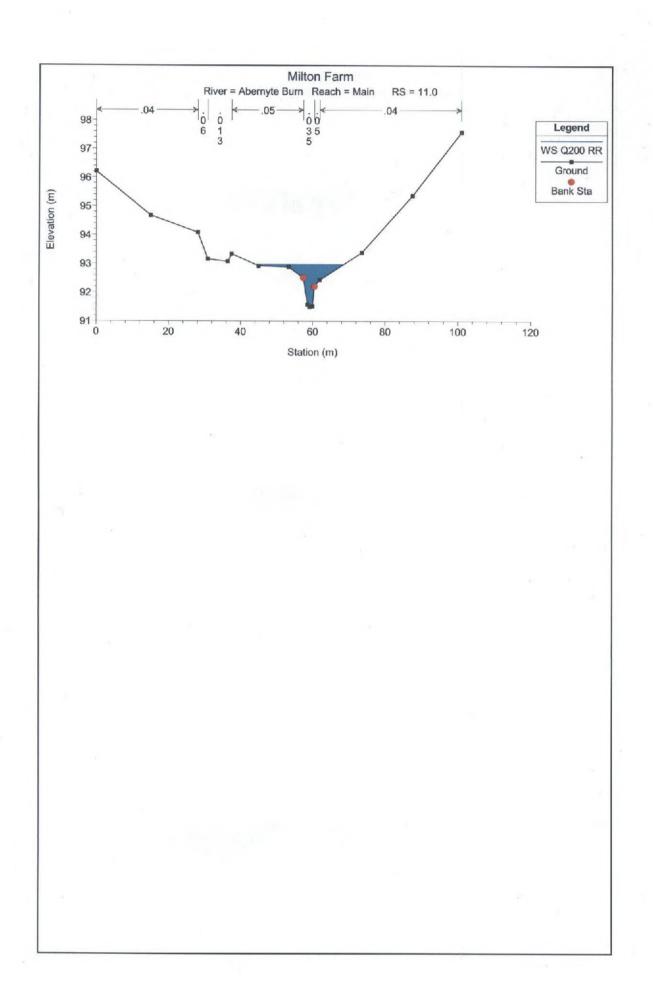




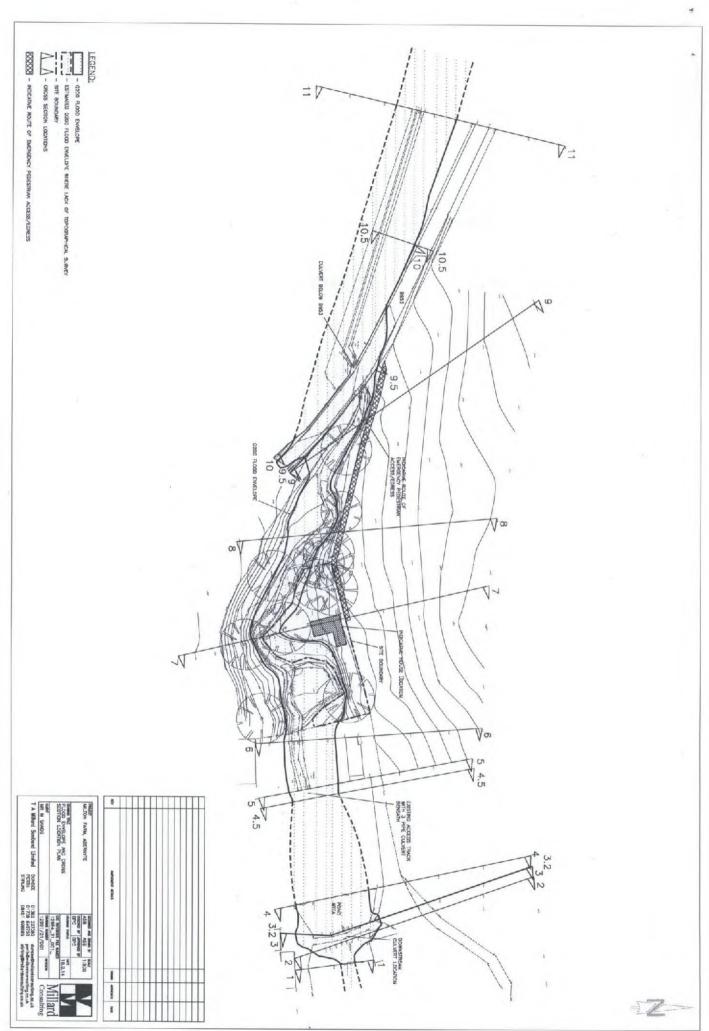








PLANS



Millard Consulting
Inveralmond Business Centre
Auld Bond Road
Perth
PH1 3FX

t 01738 646750 f 01738 646747

e perth@millardconsulting.co.uk



TCP/11/16(355)

Planning Application 14/01885/IPL – Erection of a dwellinghouse (in principle), land 50 metres south west of Milton Farm Cottage, Abernyte

REPRESENTATIONS

- Representation from Dundee Airport, dated 24 November 2014
- Representation from Development Negotiations Officer, dated 26 November 2014
- Representation from Flooding Section, dated 2 December 2014
- Representation from Regulatory Services Manager, dated
 9 December 2014
- Representation from transport Planning, dated 11 December 2014
- Representation from Education and Children's Services

CHX Planning Local Review Body - Generic Email Account

From: Anne Phillips <APhillips@hial.co.uk>

Sent: 24 November 2014 18:09

To: Development Management - Generic Email Account
Subject: 14/01885/IPL - Erect House SW of Milton Farm Abernyte

Your Ref: 14/01885/IPL

Dear Sir/Madam.

PROPOSAL: Erect Dwelling House (in principle)
LOCATION: Land 50m SW of Milton Farm Abernyte

With reference to the above proposed development, it is confirmed that our calculations show that, at the given position and height, this development would not infringe the safeguarding surfaces for **Dundee Airport**.

Therefore, Dundee Airport Limited would have no objections to the proposal.

Anne Phillips
Operations Manager
on behalf of Dundee Airport Limited
c/o Highlands and Islands Airports Limited
Head Office, Inverness Airport, Inverness IV2 7JB
01667 464244 (DIRECT DIAL)

* safeguarding@hial.co.uk b www.hial.co.uk

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Diamaina	1	Comments	Fuer Mel eveblin
Planning	4.4/0.4005/151	Comments	Euan McLaughlin
Application ref.	14/01885/IPL	provided	Stuart McLaren
		by	
Service/Section	Strategy & Policy	Contact	Development Negotiations
		Details	Officer:
			Euan McLaughlin
			Tel: 01738 475381
			Email: emclaughlin@pkc.gov.uk
			Affordable Housing Enabler:
			Stuart McLaren
			Tel: 01738 476405
			Email: sjmclaren@pkc.gov.uk
Description of	Erection of a dwellinghou	se (in principle	
Proposal	ĺ	`	,
Address of site	Land 50 Metres South W	est Of Milton F	arm Cottage Abernyte for Mr Michael
	Sands		, , , , , , , , , , , , , , , , , , ,
Comments on the	Primary Education		
proposal			
proposit	With reference to the abo	ve planning ar	oplication the Council Developer
			requires a financial contribution
	• •	•	city in areas where a primary school
			A capacity constraint is defined as
			likely to be operating following
			nt and extant planning permissions, at
	or above 80% of total cap		it and extant planning permissions, at
		outing.	
	This proposal is within the	e catchment of	Abernyte Primary School.
	Transport Infrastructure		
			pplication the Council Transport as Supplementary Guidance requires
	•		of delivering the transport
			equired for the release of all
	development sites in and		equired for the release of all
	The proposal is within the	e reduced cont	ribution area.
_			
Recommended planning condition	Primary Education		
_	Δe this application is only	"in principle" i	t is not possible to provide a definitive
(s)		•	be noted that the Developer
	•		new residential units with the exception
	•		ermination of appropriate contribution,
		•	of the school when the full application
	is received.	on the status t	in application
	Transport Infrastructure	Э	
	The application falls within	n the identified	Transport Infrastructure
	• •		I a condition to reflect this should be
	attached to any planning		
	attached to any planning	apphoanon gre	

Recommended informative(s) for applicant	N/A
Date comments returned	26 November 2014

Planning Application ref.	14/01885/PL	Comments provided by	Emily McMillan
Service/Section	Flooding	Contact Details	emcmillan@pkc.gov.uk ex 76452
Description of Proposal	Erection of a dwellinghouse (in principle)		
Address of site	Land 50 Metres South West Of Milton Farm Cottage Abernyte for Mr Michael Sands		
Comments on the proposal	 Site falls within SEPA's medium probability (0.5%) flood map (shown below). FRA submitted with planning application states that their modelling shows the location of the house is outwith the 1 in 200 yr flood extents and that pedestrian access can be maintained via a field to the north of the proposed house. However report states that vehicular access cannot be maintained during a 1 in 200 year flood event. 		
Recommended planning condition (s)	Object to application on grounds of no vehicular access maintained during a 1 in 200 yr event. SPP (2014) and PKC Developers Guidance Note on Flooding & Drainage (attached) state that vehicles need to have access during a 1 in 200 yr + cc event		
Recommended informative(s) for applicant	Refer to PKC Developers Guidance Note on Flooding & Drainage and updated 2014 SPP.		
Date comments returned	2/12/2014		

Update

I can confirm that following discussions and amendments to the plans submitted by the applicants agent, the reason for my initial objection – that emergency vehicle access during a 1 in 200 year flood event would be restricted - has now been resolved through increasing the road level of the small bridge that provides access to the house. I therefore remove my previous objection to this application.

Many Thanks

Emily

Memorandum

To Development Quality Manager From Regulatory Services Manager

Your ref PK14/01885/IPL Our ref SP

Date 9 December 2014 Tel No (01738) 476 460

The Environment Service

Pullar House, 35 Kinnoull Street, Perth PH1 5GD

Consultation on an application for Planning Permission PK14/01885/IPL RE: Erection of a dwellinghouse (in principle) Land 50 Metres South West Of Milton Farm Cottage, Abernyte for Mr Michael Sands

I refer to your letter dated 26 November 2014 in connection with the above application and have the following comments to make

Environmental Health (assessment date 9/12/14)

Recommendation

I have no objection in principle to the application but recommend the undernoted condition be included on any given consent.

Comments

This application is for the erection of a single dwelling house at the above location. The proposed site is in a rural location close to the village of Abernyte. As far as I can ascertain there have been no objections to the proposed development

Condition

The application site is surrounded by farmland and there may be noise and odour associated with this. The countryside experiences noise, and sometimes odour, from transport, farming and other rural enterprises and at appropriate levels these are an acceptable part of rural life. It is my contention that future occupants of the proposed development will be aware of the use character of the area and that there is potentially a certain amount of noise and odour associated with such a location, and therefore I do not foresee this presenting a problem.

Contaminated Land (assessment date – 09/12/2014)

Recommendation

A search of the historic records did not raise any concerns regarding ground contamination and therefore I have no adverse comments to make on the application.



Planning	14/01885/IPL	Comments	Lucy Garthwaite
Application ref.		provided by	
Service/Section	Waste Services	Contact Details	01738 475262
Description of Proposal	Erection of a dwellinghouse (in principle)		
Address of site	Land 50 Metres South West Sands	t Of Milton Farm	n Cottage Abernyte for Mr Michael
Comments on the proposal	Waste and recycling bins	will be collecte	ed from the road end.
Recommended			
planning condition (s)			
Recommended informative(s) for applicant	It is recommended that the developer construct a bin storage area comprising slabbed base with dropped kerb and fencing at the road end to accommodate bins for this development as well as existing houses.		
Date comments returned	11/12/14		

Planning Application ref.	14/01885/IPL	Comments provided by	Niall Moran
Service/Section	Transport Planning	Contact Details	x76512
Description of Proposal	Erection of a dwellinghouse (in principle)		
Address of site	Land 50 Metres South West Of Milton Farm Cottage Abernyte		
Comments on the proposal	The proposed house will utilise the existing farm access which is adequate based on the limited intensification of its use associated with a single dwelling. The final layout of the site should incorporate adequate turning and parking facilities in the interests of road safety.		
Recommended planning condition(s)	 Prior to the occupation or use of the approved development turning facilities shall be provided within the site to enable all vehicles to enter and leave in a forward gear. Prior to the occupation or use of the approved development a minimum of 2 No. car parking spaces shall be provided within the site. 		
Recommended informative(s) for applicant			
Date comments returned	11 December 2014		

Planning	14/01885/IPL	Comments	ECS
Application ref.		provided by	
Service/Section		Contact Details	Maureen Watt ext 76308
Description of Proposal			
Address of site			
Comments on the proposal	As this application is or definitive answer at this Developer Contribution with the exception of the	nly "in principl s stage howev is Policy woul lose outlined i n, if required,	bernyte Primary School catchment e" it is not possible to provide a ver it should be noted that the d apply to all new residential units n the policy. The determination of will be based on the status of the ceived.
Recommended planning condition (s)			
Recommended informative(s) for applicant			
Date comments returned			



TCP/11/16(355)

Planning Application 14/01885/IPL – Erection of a dwellinghouse (in principle), land 50 metres south west of Milton Farm Cottage, Abernyte

FURTHER INFORMATION

Millard Consulting Seabraes Inveralmond Business Centre Auld Bond Road Perth PH1 3FX telephone 01738 646750 facsimilie 01738 646747 email perth@millardconsulting.co.uk www.millardconsulting.co.uk

Our Ref: AB/12894

12th June 2015

Mr M Sands Milton Farm Abernyte Perth and Kinross PH14 9SJ

Dear Michael,



	INFRASTRUCTURE
	HIGHWAYS
	HYDROLOGY
Ξ	SURVEYING
	ENVIRONMENT
	STRUCTURES
	MANAGEMENT
	EXPERT EVIDENCE
	TRANSPORTATION

PROPOSED HOUSE, MILTON FARM, ABERNYTE, PERTH AND KINROSS DRAINAGE IMPACT ASSESSMENT

I refer to your request that we undertake a Drainage Impact Assessment to accompany your application for planning permission in principle, for a new house at Milton Farm, Abernyte. Our findings are outlined below.

Site Location and Description

The proposed development site is located approximately 300m south east of the south eastern edge of Abernyte in Perth and Kinross, approximately centred at grid reference NO 26344 30925. The site location is shown in Figure 1 below, bounded in red.

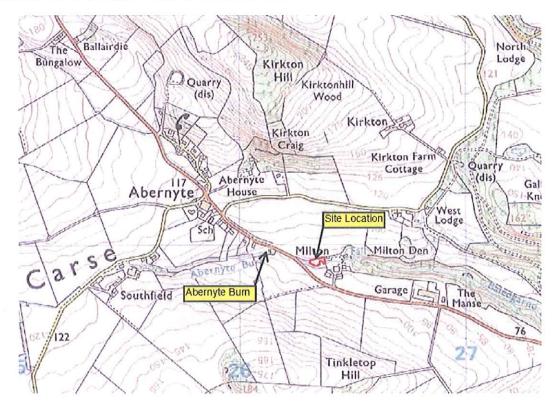


Figure 1 - Site Location Plan





The site is approximately 0.12ha in size and irregular in shape. As far as is known it has never previously been developed, and it is bounded to the north by farmland, to the east by a neighbouring property and to the south/south west by the Abernyte Burn. The site is currently covered with grass and occasional trees, and the topography slopes in a southerly direction towards the watercourse.

The site is located on the northern bank of the Abernyte Burn. As can be seen from Figure 1 above, the land surrounding the site generally slopes steeply towards the Abernyte Burn. The site is in a rural situation, with the dominant land use in the vicinity of the site being farming. It is expected that the surface water drainage regime in the vicinity of the site will mostly be natural. The site is within the natural catchment area of the Abernyte Burn.

The site has been topographically surveyed by Douglas Land Surveys. The survey of the site is shown on drawing 12894/02/001, enclosed.

Site Restrictions

Millard Consulting have undertaken a Flood Risk Assessment for the site, which was completed in September 2014. The Q200 flood envelope predicted as part of that assessment is shown on drawing 12894/02/001, enclosed. The proposed house location has been carefully selected taking into account the functional floodplain of the Abernyte Burn so that the proposed development will not occupy functional floodplain and will not entail any loss of flood storage. Hence the proposed development will not be at risk of flooding, and will have no negative impact on flood risk to properties in the surrounding area or downstream.

Surface Water Drainage

The proposed development is a single house, hence it is appropriate, in line with established good practice and in line with the requirements of The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (General Binding Rules) for surface water from the development to be discharged into the watercourse adjacent to the site.

It is recommended that the discharge pipe to the watercourse be a perforated pipe (from the point at which the pipe is at least 5m from any structure), surrounded in gravel and with an enclosing permeable geotextile, enabling infiltration into the surrounding subsoil where possible.

Foul Water Drainage

We understand the site is not served by mains drainage, hence a private foul drainage solution will be required. The first option to be investigated would be a discharge to soakaway, following treatment by either septic tank, or a treatment plant. The choice of treatment option would be determined by both SEPA requirements, and the infiltration rate of the subsoil at the location of the proposed soakaway.

Should it be established following infiltration testing find that a soakaway solution is not feasible, a suitable discharge standard will be agreed with SEPA for a discharge of treated effluent to the Abernyte Burn. The treatment standard set by SEPA would be met by the provision of an appropriate treatment plant. As with the surface water drainage, the discharge pipe should be perforated and surrounded by gravel and a permeable geotextile to enable infiltration where possible, prior to discharge into the watercourse.

It should be noted that the foul drainage system (treatment unit and soakaway) should be located outwith the 1 in 200 year flood envelope of the Abernyte Burn, as indicated on drawing 12894/02/001, enclosed.

Summary

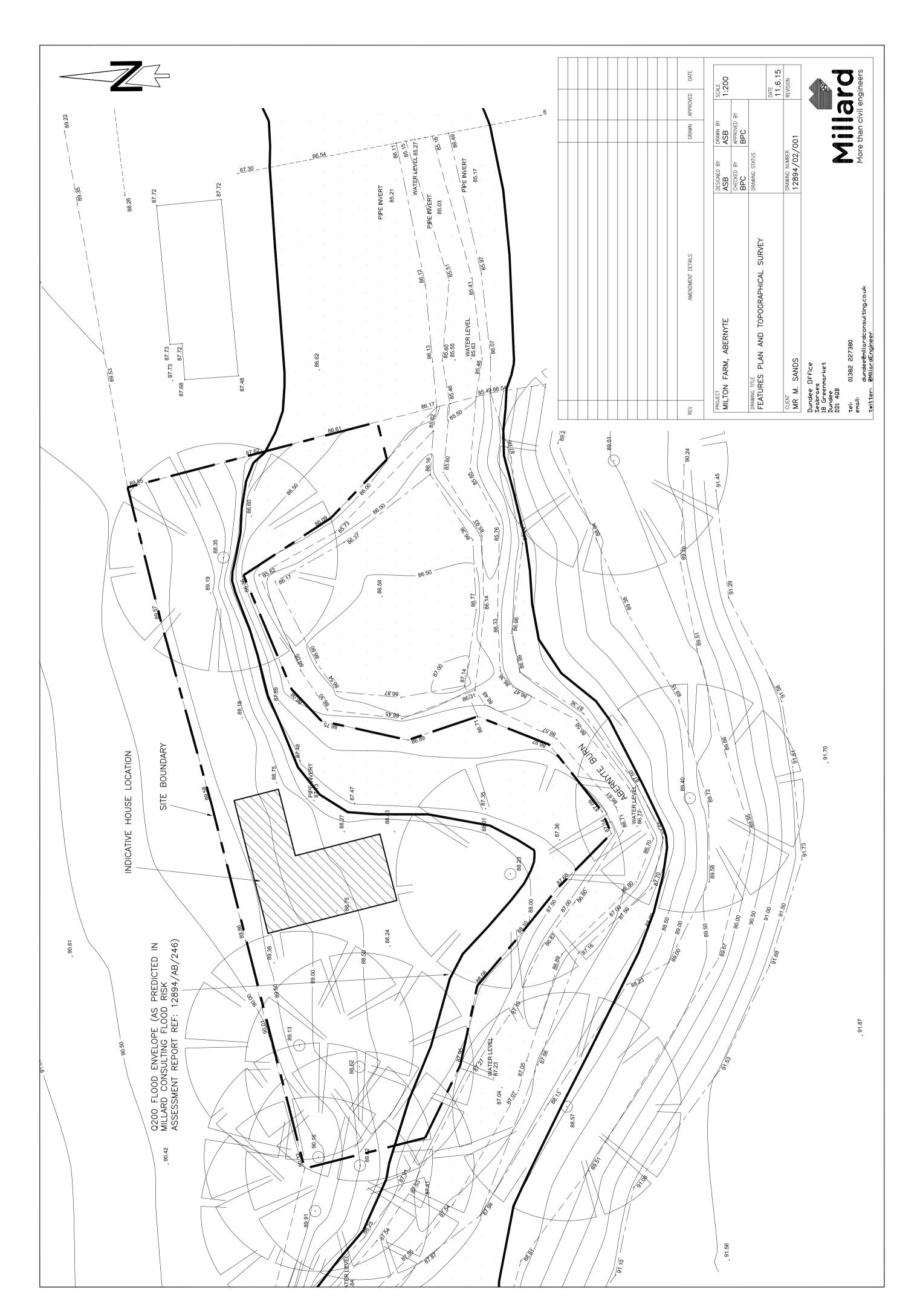
This Drainage Impact Assessment demonstrates that appropriate drainage solutions can be provided for the proposed development. The proposals outlined above provide suitable, sustainable solutions, for both surface water and foul water drainage.

I trust the above is satisfactory at this time, however should you have any queries, or require any further information, please do not hesitate to contact us.

Yours sincerely,

Andrew Braid Millard Consulting

Enc: Drawing 12894/02/001





Perth & Kinross Council – Flood Risk and Flood Risk Assessments (Developers Guidance Note on Flooding and Drainage)



APPENDIX B - ASSESSMENT COMPLIANCE CERTIFICATION & INSURANCE

<u>Assessment Compliance Certification</u>

I certify that all reasonable skill, care and attention has been exercised in undertaking the attached Flood Risk Assessment / Drainage Impact Assessment / Surface Water Drainage Design* (delete as appropriate). The documentation has been prepared for the below noted development in accordance with the PKC Developers Guidance Note on Flooding and Drainage.

Name of Development	PROPOSED HOUSE AT MICTON FARM, ABERUTTE
Address of Development	LUBS SOM SOUTH WEST OF
	MILTON FARM COTTAGE, ASERUTTE
Name of Developer	MR MICHAEL SANDS
Planning Application No	14/01885/17L
Name and Address of	MILLARS CONSULTING, INVELALTIONS
Organisation preparing this	BUSINESS CENTRE, MULL BOWN POSD,
Assessment	PERTH, PHI 3FX
Signed	ph //n
Name	BRIAN P. COGHLAN
Position Held	TECHNICAL DIRECTOR
Engineering Qualification	BSE (HONS) PhD MCIWEM
Date	12/06/15

INSURANCE

Please attach a copy of your professional indemnity insurance policy to this document.

⁽¹⁾ Chartered Engineer or equivalent from an appropriate Engineering Institution.



400/410 Perth Road Dundee DD2 1JQ Tel: 01382 646454 Fax: 01382 666607 Date: 27/03/2015

TO WHOM IT MAY CONCERN

Seabraes Ltd and TA Millard Scotland Ltd

We confirm that the above Company have Professional Indemnity Insurance placed as follows:

Professional Indemnity

Insurers: Lloyds' Syndicates

Policy Number: WIMPI1523393/ WIMPI1523782 Limit of Indemnity: £ 5,000,000 any one claim costs in

addition

Syndicates: Channel 2015 (100% Primary £3m)

Marketform (70%) Argo (30%) of £2m

over Primary £1m

Policy form: Primary: Wimsure AR/EN 2014

Excess Layer: LPO392

Excess: £5,000 each and every claim

Period of Insurance: 3rd March 2015 to 2nd March 2016

The above Insurances are subject to the Insurers' normal Policy Wording, Terms and Conditions.

Steven Duff ACII BSC (Hons)

Account Handler

OS R Duff



TREE SURVEY & ARBORICULTURAL REPORT

FOR

Trees at Milton Farm, Abernyte

Requested by: Create consulting engineers Ltd.

Prepared by: Martin Langton Report reference: MGL

Date: June 2015

SUMMARY

This development proposal is to construct a dwelling house on land 50 metres south west of Milton Farm Cottage Abernyte. The Panning Review body of Perth & Kinross Council has requested a Tree Survey to identify the potential risks to the trees as a consequence of the proposal.

Thirteen trees have been surveyed within and immediately adjacent to the development site. The trees have been assessed in relation to BS 5837: 2012, both in the current context and when related to the proposed development. The trees are of good quality and with high landscape value; they are located within a field currently used for grazing and are adjacent to the existing Milton Farm cottage.

The location of the proposed house will be set within the group of trees and this report will set out the prescribed tree protection measures in order to achieve this. The measures outlined will safeguard the long term well-being of the retained trees, provided that these measures are strictly adhered to. The main issue is the protection of the trees T2, & T3 - both mature Oak.

There is significant tree cover on site which is generally of high quality. The surrounding areas provide substantial high quality tree cover also, but new replacement tree planting is recommended as most of the trees are either mature or entering their mature phase and this would help to increase the age-structure. The further tree planting would mitigate against any tree removal if it were considered necessary.

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	 Plan 2: Tree Protection Plan 	
5	Tree quality assessment chart: BS 5837: 2012	

ARBORICULTURAL REPORT

Milton Farm – 50m south west of Milton Farm Cottage

Brief: I have been instructed to survey the trees on site in accordance with British Standard 5837: 2012 'Trees in relation to design, demolition and construction - Recommendations' and assess their suitability for retention in relation to the proposed development. This report is developed further to assess the arboricultural implications of the development proposal and provide guidance on the protection of retained trees during construction.

TREE SURVEY DETAILS

1 Scope of Survey and Report

- 1.1. This survey (and report) is concerned with the arboricultural aspects of the site only. The survey was carried out on 11th June 2015.
- 1.2. It is restricted to trees within the site or those immediately out with that may be affected by its development. No other trees have been inspected.
- 1.3. The survey has been carried out following the guidelines detailed in British Standard 5837(2012) 'Trees in relation to design, demolition and construction recommendations'.
- 1.4. It is recommended that contact is made to the Local Authority to enquire if the trees have any statutory protection prior to undertaking any tree work recommended in this report.
- 1.5. Only trees of significant stature have been surveyed: trees with a stem diameter less than 75mm and large shrubs have been excluded.
- 1.6. In some cases groups of trees are discussed collectively where individual identification and separate treatment has been deemed unnecessary.
- 1.7. No plant tissue samples have been taken and no internal investigation of the tree has been carried out.
- 1.8. No soil samples have been taken and or soil analysis carried out.
- 1.9 I have taken the positions of trees from the site plans provided (produced by others). Tree locations are shown plotted on an amended version of those plans.

1.9. This report should be read in conjunction with the Tree Protection Plan that will accompany this report (see appendix 4).

2. Survey Method

- 2.1 The survey has been conducted from ground level.
- 2.2 It is based on an assessment from ground level and examination of external features only – described as the 'Visual Tree Assessment' method per Mattheck and Breloer - stage 1 - (The Body Language of Trees, DoE booklet Research for Amenity Trees No. 4, 1994).
- 2.3 I have estimated the height of each tree visually, having measured a sample of the trees using a hypsometer.
- 2.4 Trunk diameters of single stemmed trees have been measured at 1.5m above ground level. Multi-stemmed trees have been measured immediately above the root flare and for individual stems.
- 2.5 The crown radii have been estimated by pacing and are given for the main compass points: north, south east and west.
- 2.6 The dimensions of trees within groups are given as an averaged figure unless otherwise stated.
- 2.7 Where access to trees was obstructed or obscured, measurements have been estimated.

3 The site

- 3.1 The site is located at Milton Farm accessed from the B953 and is just outside the village of Abernyte.
- 3.2 The plot is located to the west of the Milton Farm and Milton Farm Cottage. The current use of the site is pastureland containing a group of trees and individual trees. The plot is proposed within a large gap between the trees. There are 13 trees on or adjacent to the site.
- 3.3 The topography on site is variable: the proposed access is flat and land slopes gently to a burn, the area for the proposed house slopes slightly then flattens out.

4 Existing Trees

General observations

- 4.1 I have surveyed 13 trees in total, 7 are located on site and 6 are out-with the site boundary. The trees are referenced 'T1-13' on the tree survey plan.
- 4.2 The location of the trees is shown on plan 1, the Tree Survey Plan (appendix 4).
- 4.3 The tree details are shown on the Tree Survey Schedule at appendix 3.
- 4.4 Three trees are located close to the plot; these are: T3, T4 and T10 and T1 & T2 are close to the proposed access. Trees T5,6,7,are within the plot but at greater distance, and the remaining trees T8, 9, 11, 12, 13 lie outside but adjacent to the application site
- 4.5 Most of the trees are of good form and structure with the exception of T1, T5 and T8.
- 4.6 <u>Tree Work required:</u> Remedial tree work has been recommended in the current context mainly involving dead wooding of the crowns and one tree T2 (a large mature Oak), requires the further inspection of a western limb. Removal of T1 (Elm), and T8 (Ash) is recommended due to their poor quality.
- 4.7 <u>Tree condition:</u> Although the assessment of a tree's condition is a subjective process, British Standard 5837: 2012 gives clear guidance on the appropriate criteria for categorising trees and the factors that assist the arboriculturist in determining the suitability of a tree for retention.
- 4.8 I have categorised all of the surveyed trees according to BS 5837 as follows. (These can be viewed in full at appendix 5):-
 - **Category U:** Trees of poor condition, such that any existing value would be lost within ten years and which, in the current context, could be removed for reasons of sound arboricultural management.
 - **Category A:** Trees of high quality and value: in such a condition to make a substantial contribution to amenity (a minimum of forty years is suggested).
 - **Category B:** Trees of moderate quality and value: those in such a condition as to make a significant contribution (a minimum of 20 years is suggested.
 - **Category C:** Trees of low quality and value which might remain for a minimum of 10 years, or young trees with uncertain potential.

- 4.9 Seven trees, 4 Oak, 2 Sycamore and 1 Ash, are attributed category 'A' status and are considered to have long term potential. Two Ash trees are of reasonable form and prominence and are considered to be 'B' category trees.
- 4.10 The remaining trees: 2 Ash are considered to be 'C' category, they are poorly formed trees and showing signs of crown dieback.
- 4.11 Two trees are category U, T1 is coppice from Elm stump and it is unlikely to develop into a structurally sound tree, T8 is dying.

Tree constraints and layout design

- 4.13 Following my inspection of the trees, the information in the Tree Survey Schedule, has been used to provide constraints guidance based on the location of the trees, the crown spread and available rooting.
- 4.14 The Root Protection Areas (RPA's): (the area where ground disturbance must be carefully controlled) have been established according to the recommendations set out in BS 5837.
- 4.15 The above and below ground constraints, as discussed above, have been used to draw up the 'Tree protection Plan', plan 2 at appendix 4.
- 4.16 The RPA of the trees T2 & T3 represents the only constraint to development as the present location of the proposed building is slightly within the RPA of T3 by less than 5% of the protected area. The access route impinges on RPA of T2 by 20%, however, it is argued that this area is already disturbed by ploughing and should not impact significantly on the root structure.

THE DEVELOPMENT

5 Proposals

- 5.1 To construct a dwelling house on the area of land adjacent Milton Farm Cottage.
- 5.2 Access will be taken from the current farm road and to the rear of the existing farm cottage.

6 Trees and construction: overview

- 6.1 Tree rooting is widely misunderstood and it is a surprising fact that typically, about 80% of roots will be found in the upper half metre of soil and often extend well beyond the canopy spread. The threat to the trees from development comes from:-
 - Root severance or fracture
 - Compaction of the soil, preventing gaseous exchange and moisture percolation
 - Possible changes to moisture gradients due to surface water run-off or interception
 - Chemical contamination from cement and other substances
 - Physical damage to low branches, trunk and root crown
- 6.2 The consequences for the tree of such damage are:-
 - Instability, if severe enough
 - Entry points for pathogenic fungi at wounds and fractures
 - Loss of vitality and predisposition to pathogens

All of these can lead to root death which can cause a general decline or possible death of the tree.

6.3 As well as the physical footprint of any new buildings, roads other hard surfaces and service runs, allowance needs to be made for the essential space requirements for construction activity. This includes machinery access for foundation excavation and building, circulation space, material storage and parking.

7 <u>Arboricultural Impact Assessment</u>

7.1 The primary criterion, in arboricultural terms, is the retention of as many appropriate trees as is practicable. Trees are generally an important part of the amenity and character of a site and are, as is generally accepted, of benefit to the environment.

Tree retention

7.2 The design proposal allows for the retention of **all** trees of prominence and arboricultural significance.

Tree removals

- 7.3 The design proposal will **not** require the removal of any trees. Only two trees are identified for removal and are not as a result of the development of the site.
- 7.4 .Consideration might be given to the removal of T10 which is to the south of the proposed house; replanting to mitigate against the possible removal of this tree could involve the planting of young Oak to help improve the age structure of the trees. The trees are generally of a single age and some young planting would help to provide longevity of the tree cover.

Post development pressures – shading, leaf fall and branch breakage

7.5 There are no undue post development issues to consider given the nature of the proposal provided that retained trees, particularly the Oak (tree 3) is protected properly during construction, as detailed in this report.

Access and storage

7.6 During construction there is ample scope to position materials away from the Root Protection Areas of retained trees, the farm is in the ownership of the applicant, therefore storage can be arranged within the farm.

Underground services

- 7.7 From discussions with the client I understand there are no plans to install underground services within the root protection area of the trees.
- 7.8 Should the installation of new underground services run within the Root Protection Area of any of the trees on site, see 8.11 below.

Tree pruning works to facilitate development

7.9 No additional pruning work over and above that recommended for the current context is required to facilitate development.

Mitigation and landscaping

- 7.10 I recommend that a hedge be planted between the proposed new access and the cereal field with native species such hawthorn, this will help improve biodiversity and help soften the impact of the new house and access road.
- 7.11 If any trees are removed, they will be replaced on a 2:1 basis with native species.

8 Protection of trees during construction

- 8.1 It is equally important to ensure the protection of trees both above and below ground. Guidance is provided in British Standard BS 5837: 2012 'Trees in relation to design, demolition and construction- recommendations' as to the protection of existing trees before, during and post-development.
- 8.2 In order for retained trees to flourish, it will be essential to minimise root severance or compaction of soil within the Root Protection Area (RPA). The principle method of tree protection on this project will be tree protective fencing.
- 8.3 The Tree Protection Plan shows the location of tree protective fencing to protect the trees, in particular T2, T3, & T10. The plan shows the present location of the building and how it can be accommodated given the position of the trees and the need to protect their root systems
- 8.4 As previously mentioned the RPA for T2 overlaps the location of the building by around 5%; this is acceptable given the good condition of the tree and that its remaining root structure is protected as part of a group of trees.
- 8.5 An alternative would be to alter the position of the house and move it 3 metres or so further east towards T2 as there is considerable distance between T2 and T3. This is assuming the present location is indicative only.
- 8.6 A retaining wall should be given consideration given the slope to the site beside T3 and this could be about metre away from the property; hand-digging is recommended.
- 8.7 The RPA for T2 extends into the proposed access route by approximately 20%. All of the affected part is within an already disturbed area of ground; it is constantly being ploughed making it a hostile environment for root development. If it is found to have roots in this area, then a no-dig method of construction can be adopted in which the area within the RPA is built up with porous material and a geotextile membrane used to disperse weight. A specification for hand digging is included at appendix 2

Tree protective fencing

- 8.8 Protective fencing should be installed before any construction activity takes place. The design of fencing suitable for purpose and compliant with BS 5837 is given at appendix 1.
- 8.9 BS 5837 allows for the use of ground protection in combination with protective fencing. If required on this site, ground protection will involve the

use of side butted scaffold boards over a geoxtile underlay. Any ground protection will be installed prior to construction activity.

Hand digging

- 8.10 The area proposed for the access route will require hand digging if it is shown to contain roots. Trial pits will be hand dug to assess whether hand digging will be required for the excavation of the access track.
- 8.11 The installation of drainage and services will be required and if it is anticipated that it will be required to carry this out within the RPA of retained trees, this should be undertaken in accordance with the National Joint Utilities publication: Volume 4: NJUG Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees (NJUG4). This requires no-dig installation (e.g. thrust boring or careful hand digging) within the canopy spreads of retained trees. Further details can be provided if required.

Other general protection measures

- 8.12 Soil levels within the RPA of retained trees should not be lowered or raised even temporarily and topsoil should not be stripped.
- 8.13 Avoid disturbing the natural water table level.
- 8.14 Do not light fires near to any retained trees.
- 8.15 Do not attach notice boards, telephone cables or other services to any retained trees.
- 8.16 Any landscape treatment around retained trees should be low impact
 avoiding deep excavation, root severance and compaction.
- 8.17 Further details of alleviating specific conflict between trees and building on this site can be provided if required.

9 RECOMMENDATIONS

- 9.1 Tree works: and removals recommended in this report should be carried out by suitably experienced tree surgeons. Tree felling and pruning should comply with BS 3998: 2010 'Tree Work'. Trees to be removed are indicated in the Tree Protection Plan.
- 9.2 Statutory wildlife obligations: The Wildlife and Countryside Act 1981 as amended by the Nature Conservation (Scotland) Act 2004 provide statutory protection to birds, bats and other species that inhabit trees. All tree work operations are covered by these provisions. Prior to undertaking any tree work, the trees should be inspected by a suitably qualified ecologist for the presence of Bat roosts. Prior to undertaking tree works the Contractor should make a visual inspection of the tree for Bat roosts. If Bats and/or roosts are identified, Scottish Natural Heritage (SNH) should be contacted and an agreement made with regard to measures to be undertaken to protect Bats before undertaking any work which might constitute an offence.
- 9.3 **Tree protection measures:** as detailed in this report should be used to protect the retained trees.
- 9.4 **Appropriate replacement tree planting** should be carried out post-construction as indicated in this report to ensure sustained, effective long term tree cover on site. Choice of species should fit well with site conditions, planting conditions and future growth in relation to infrastructure.

Martin Langton
Bsc (Hons) For, MICFor, CEnv

Appendix 1: Tree protection measures

Tree Protection Fencing

Default specification for protective barrier

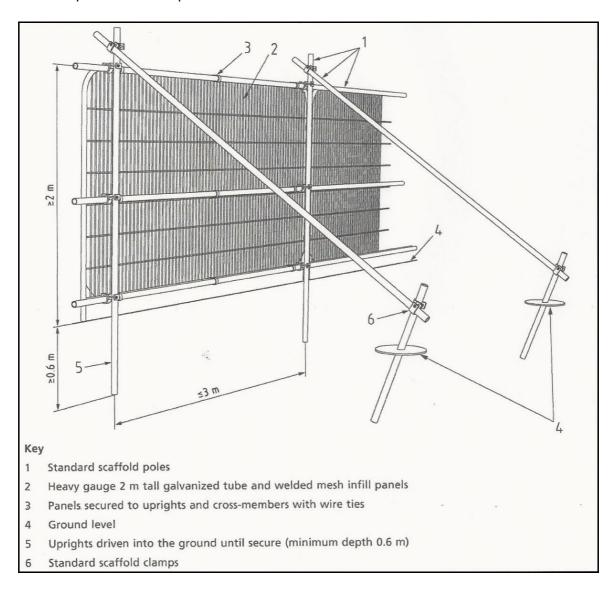


Figure 1: Tree Protective Fencing diagram from BS 5837: 2012

Heras Fencing

Heras fencing describes the 2.1m galvanised steel mesh panelled fencing normally supplied with pre-cast concrete bases. Bases are to be replaced with a fixed wooden frame to which panels are clamped/firmly fixed. For extra stability, scaffold poles/4 x 4 wooden posts are to be firmed in to the ground as supporting posts and supporting struts are to be attached at a 45 degree angle on the 'tree side' of the fencing and fixed in to the ground, as required.

Examples of ground stabilising systems

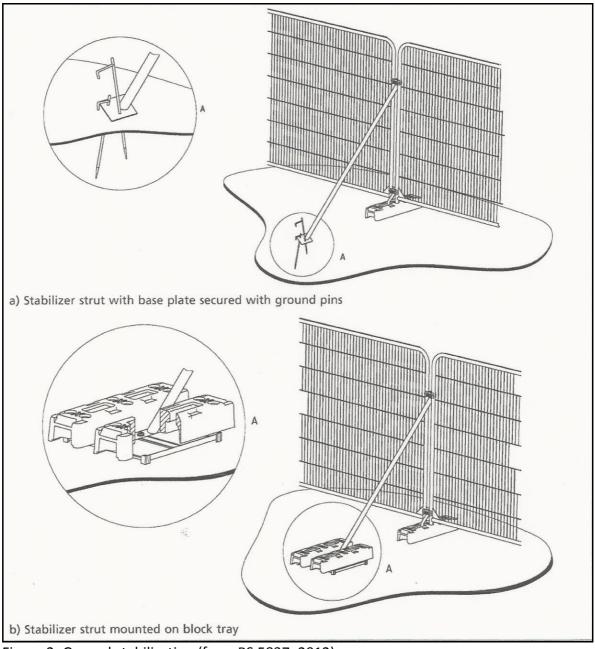
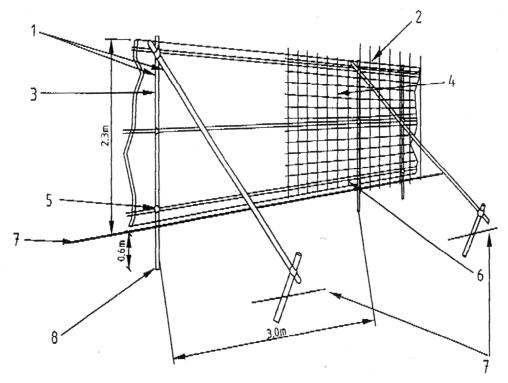


Figure 2: Ground stabilisation (from BS 5837: 2012)

Appendix 1 continued

9.3 Ground protection

- 9.8.1 Where it has been agreed during the design stage, and shown on the tree protection plan, that vehicular or pedestrian access for the construction operation may take place within the root protection area (RPA), the possible effects of construction activity should be addressed by a combination of barriers and ground protection. The position of the barrier may be shown within the RPA at the edge of the agreed working zone but the soil structure beyond the barrier to the edge of the RPA should be protected with ground protection.
- 9.3.2 For pedestrian movements within the RPA the installation of ground protection in the form of a single thickness of scaffold boards on top of a compressible layer laid onto a geotextile, or supported by scaffold, may be acceptable (see Figure 3).
- 9.3.3 For wheeled or tracked construction traffic movements within the RPA the ground protection should be designed by an engineer to accommodate the likely loading and may involve the use of proprietary systems or reinforced concrete slabs (see 11.8 and 11.9).



- 1 Standard scaffold poles
- 2 Uprights to be driven into the ground
- 3 Panels secured to uprights with wire ties and where necessary standard scaffold clamps
- 4 Weldmesh wired to the uprights and horizontals
- 5 Standard clamps
- 6 Wire twisted and secured on inside face of fencing to avoid easy dismantling
- 7 Ground level
- 8 Approx. 0.6 m driven into the ground

Figure 2 - Protective barrier

Appendix 2

Method statement for hand digging near trees

1.0 Introduction

- 1.1 Within and adjacent to areas of construction, trees valued as important landscape assets may exist. It is possible such trees are protected by legislation in the form of a Tree Preservation Order, conservation area or by planning conditions. In either case, disregard to the tree's well- being by causing damage to the roots, trunk or branches may be an offence. Consent from the Local Planning Authority may be required to undertake works that may have an impact on the tree prior to commencement.
- 1.2 Whilst the trunk and branches of a tree can be seen and are therefore more easily avoided, tree roots are concealed beneath the ground. Their hidden nature can lead to inadvertent damage from the construction processes. The whole tree can be adversely affected depending upon the extent of any root damage. It is for this reason that it is necessary to ensure adequate precautions are adopted when considering construction in the vicinity of trees.
- 1.3 Hand digging rather than excavation by mechanical means has proved to be an effective way of limiting the effects of construction on nearby trees. It is often considered impractical, time consuming and costly to excavate by hand when machinery exists specifically for the purpose of digging. However, avoidance of unsustainable damage being caused to important trees through hand digging may far outweigh subsequent costs associated with legal penalties and loss of amenity.
- 1.4 Below are detailed the basic principles to acknowledge in respect of tree roots and the practical steps that can be taken to avoid causing unsustainable damage to trees.

2.0 Tree root damage – how it can occur

- 2.1 The majority of tree roots exist in the upper 600mm of soil. Even shallow excavation can therefore be harmful to tree roots and consequently the tree.
- 2.2 Tree root systems comprise two main root types: those that anchor the tree in the ground and those that supply the tree with water and elements. Roots that support the tree are woody and those that are involved with the conduction of water and nutrients are non woody and fibrous. Both types of roots can be damaged directly by severing or crushing. Fibrous roots can die from asphyxiation by soil compaction and/or soil contamination. Trees differ in their tolerance

- of root loss or disturbance, according to their species and condition or both.
- 2.3 In general, the larger the root damaged, the greater the impact on the tree.
- 3.0 Hand digging in the vicinity of trees the process
 - 3.1 First it is necessary to consider all available options in order to construct beyond the likely range of influence on the tree's condition this can be calculated by multiplying the tree trunk circumference (at 1.5m above ground level) by 4 (NJUG 10) or by reference to table 1 of BS 5837:2005 'Tree in Relation to Construction.

 Recommendations'. This area is called the Precautionary Zone or Root Protection Area. When it is established that no options are available other than to construct within this zone, hand digging will be needed. When considering hand digging, an appointed specialist supervisor/consultant will be able to advise during construction and must be on site at the commencement of works.
 - 3.2 Before beginning to dig, mark out the precautionary area with ground marker paint, clearly on the ground. This will identify the area within which hand digging must take place. For safety, ensure there are no underground services that may cause injury if damaged. Any existing protection fencing is to be located to the nearest position of construction and fixed in place, between the tree and area of construction. It will be clearly visible to operators thereafter where hand digging will be undertaken. The use of mechanical digging equipment to remove the top surface layer (50-100mm) is to be avoided and hand tools are required for this exercise too.
 - 3.3 When hand digging, using typical hand tools, carefully work around roots, retaining as many as possible. Using a brush will expose roots cleanly before deciding whether it will be necessary to prune. Care must be taken not to damage roots, including the roots' bark.
 - 3.4 Retain all roots with a diameter greater than 25mm. Where such roots must be removed, after consulting a trained arboriculturalist (e.g. Local Authority Tree Officer or the appointed Consultant), these roots must be pruned with sharp cutting tools such as handsaw, secateurs or pruners. The cut must leave the smallest wound possible and the root must be left as long as practicably possible. Roots in excess of 50mm diameter are to be retained and protected by surrounding the root with un-compacted sharp sand, void-formers or other compressible materials.
 - 3.5 Where roots do not exist, e.g. beyond the depth of the rooting area, mechanical excavation should not be considered without specialist supervision.
 - 3.6 All spoil is to be deposited beyond the precautionary zone. Soil build up can cause roots to die.

- 3.7 As soon as practicable, exposed roots are to be covered with loose backfill material such as soil/sand mix to offer immediate protection. When excavating for the introduction of posts, pads or piles, the sides of the pits should be lined with a geotextile material to prevent the potential for lime scorching of small diameter roots.
- 3.8 Where it is impossible to avoid completing the construction in one day, for example, any exposed roots or their cut ends are to be covered with sacking material over night to prevent drying out and to add protection. This is particularly important in winter months, where frost can cause further damage to roots.
- 3.9 Upon completion of the hand digging, where appropriate, protection fences are to be relocated and fixed in their original position.

Attached is an extract from National Joint Utilities Group publication No.10 1995, 'Guidelines for the planning installation and maintenance of utility services in proximity to trees'. In addition Table 2 from BS 5837:2005 'Trees in Relation to Construction. Recommendations' is provided.

Before considering hand digging and determining precautionary zones or root protection areas, specialist arboricultural advice should be sought.

In the Precautionary Area:

- **Don't** excavate with machinery. Use trench-less techniques where possible. Otherwise dig only by hand.
- When digging, carefully work around roots, retaining as many as possible.
- **Don't** cut roots over 25mm in diameter, unless the Council's Tree Officer agrees beforehand.
- Prune roots which have to be removed using sharp tools (e.g. secateurs or handsaw). Make a clean cut and leave as small a wound as possible.
- Backfill the trench with an inert granular material and top soil mix.
 Compact the backfill with care around the retained roots. On non-highway sites backfill only with excavated soil.
- Don't repeatedly move/use heavy mechanical plant except on hard standing.
- **Don't** store spoil or building material, including chemicals and fuels.

Frost can damage exposed roots. If trenches are to be left open overnight, cover the roots with dry sacking. Remember to remove the sacking before backfilling.

National Joint Utilities Group 30 Millbank London SW1P 4RD Appendix 3

Tree Survey Schedule

Tree Survey Schedule for trees at Land 50m SW of Milton Farm Cottage, Abernyte

Appendix 3

Requested by: Create consulting enginners
Site: Miton Farm Abernyte
Date of Survey: 11th June 2015
Arboricultural consultant/surveyor: Langton Tree Specialists Ltd.
Weather: Dry and sunny.

	OUTWITH APPLICATION SITE						
Cat Grading	D	A2	A2	A2	C2	A2	B2
Est. Rem Cont. Years	<10	>40	>40	>40	10 to 20	>40	20 to 30
Prel. Man. Recs.	remove tree	investigate decay in west limb , dead wood crown	remove deadwood	remove deadwood	reduce crown in 2 to 3 years	remove deadwood	remove deadwood
Structural condition	coppice regrowth from stump	Crown bias to NE, branch stubs @ 5m from past puning/storm damage, further investigation of west branch decay noted in limb, some dead wood in crown	healthy specimen of good form. Minimum dead wood in crown, some girling of roots	good form .crown bias to south as shaded by T3, twisting to trunk, minor deadwood in crown	upright tree,crown die-back, bias to north as part of group, reducedleaf cover (>50%) with dead wood	large spreading oak of good form, crown bias to south, minor deadwood in crown	Fork @ 3m, crown bias to north & west, outer tree of group, minor dead wood in crown
Phys Cond	Fair	poob	poob	poob	Fair	poob	fair
Age Class	Young	Mature	Mature	Early- mature	Early- mature	Mature	Early- mature
RPA radius (mm)	2,880	11,880	12,720	7,680	6,720	12,360	7,200
± CC	2	8	2	3	9	4	ဇ
CS W (m)	3	7	4	3	2	9	4
CS E	4	8	4	9	-	7	2
CS S (III)	ю	2	2	Ω	2	1	7
CS N	ю	2	10	4	10	ro	Ŋ
Stem branch <1.5m	Σ	-	-	-	-	-	-
Stem Diam (mm)	240	990	1060	640	560	1030	009
Height (m)	7	16	18	12	14	18	13
Species	Wych Elm <i>Ulmus gabra</i>	Oak Quercus robur	Oak <i>Quercus spp</i>	Sycamore Acer pseudoplatanus	Ash Fraxinus excelsior	Oak Quercus robur	Ash Fraxinus excelsior
Tree Reference	T1 Tag 0513	T2 Tag 0514	T3 Tag 0515	T4 Tag 0516	T5 Tag 0517	T6 Tag 0518	T7 Tag 00519

Langton Tree Specialists Ltd., June 2015

Tree Survey Schedule for trees at Land 50m SW of Milton Farm Cottage, Abernyte

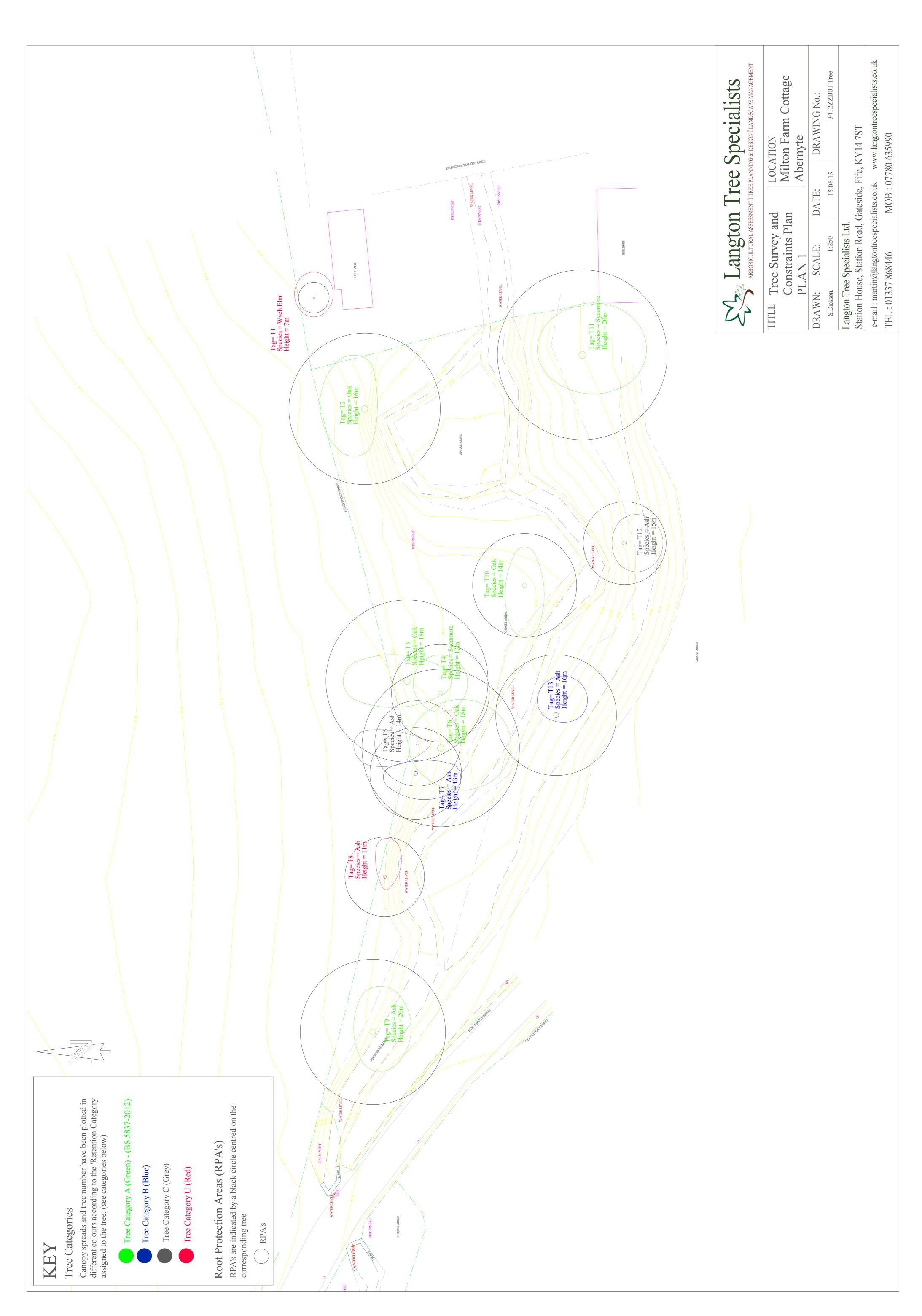
Appendix 3

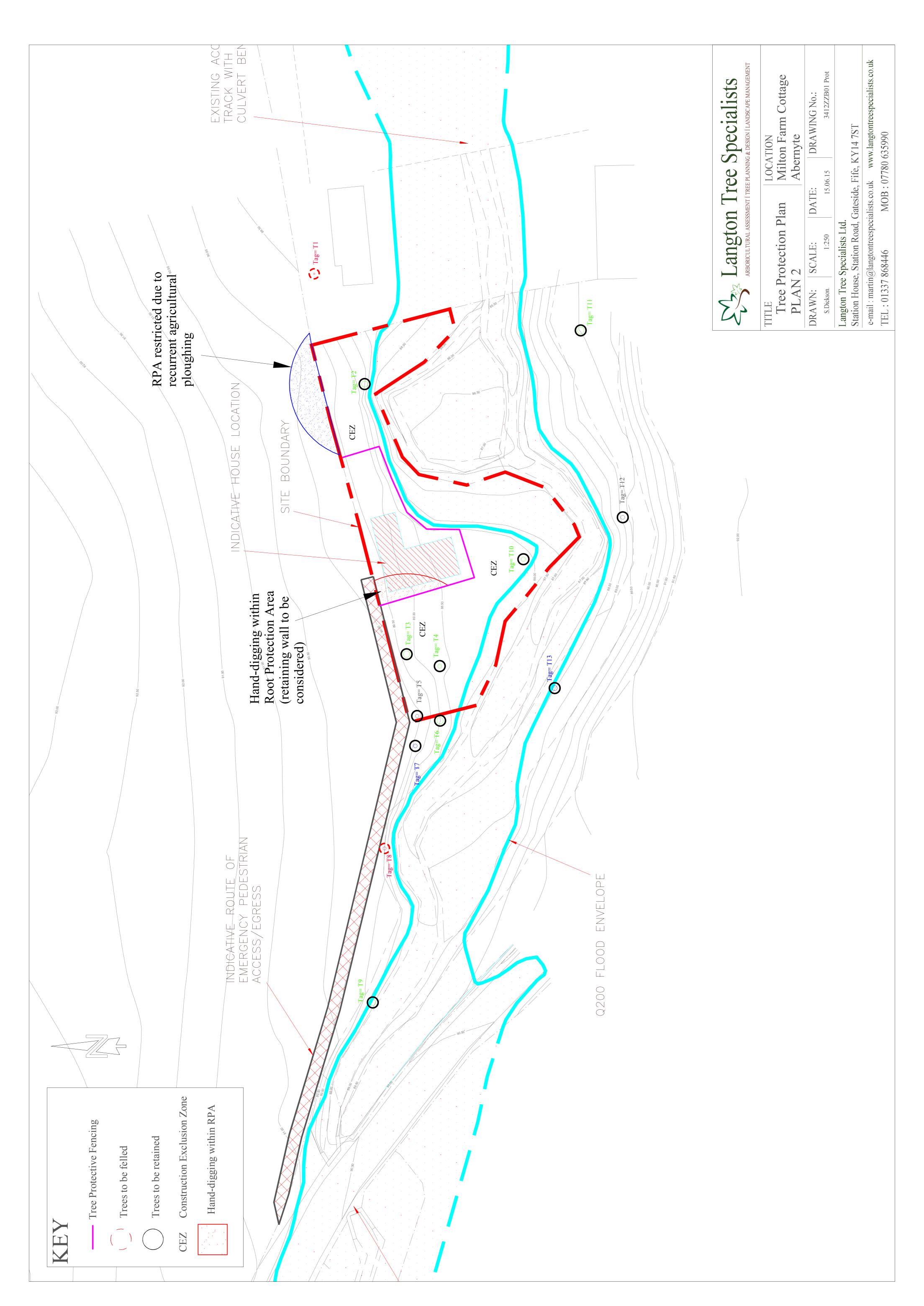
	OUTWITH APPLICATION SITE	OUTWITH APPLICATION SITE	·	OUTWITH APPLICATION SITE	OUTWITH APPLICATION SITE	OUTWITH APPLICATION SITE
Cat Grading	Э	A2	A2	A2	5	B2
Est. Rem Cont. Years	<10	>40	>40	>40	10 to 20	20 to 30
Prel. Man. Recs.	remove tree		remove deadwood			·
Structural condition	dying, positioned on side of bank,	large spreading tree of good form , high landscape value, positioned on river bank	structuraly sound tree with crown bias to south, minor deadwood	healthy tree with no structural defects observed, attractive specimen with good shaped crown.	no structual defects observed, but crown showing signs of dieback	crown bias to south, showing signs of dieback double leader @4m
Phys Cond	poor	poob	poob	poob	Fair	Fair
Age Class	Early- mature	Mature	Mature	mature	mature	mature
RPA radius (mm)	6,240	11,400	8,160	13,320	7,800	9,480
H CC	ю	2	4	4	5	3
CS W (m)	N	9	8	9	4	1
CS E	φ	7	9	80	4	9
CS S	α	9	ဇ	10	9	4
S (E)	-	8	8	2	2	2
Stem branch <1.5m	-	-	-	-	Σ	-
Stem Diam (mm)	520	096	089	1110	650	062
Height (m)	=	20	14	20	15	16
Species	Ash Fraxinus excelsior	Ash Fraxinus excesior	Oak Quercus robur	Sycamore Acer pseudoplatanus	Ash Fraxinus excelsior	Ash Fraxinus excelsior
Tree Reference	T8 Tag 05120	Tag 0521	T10 Tag 0522	T11 Tag 0523	T12 Tag 0524	T13 Tag 0525

Key:C S S: Crown spread to south
Ht CC Height of crown clearance
RPA radius: radius of Root Protection Area
Phys cond: Physiological condition
Prel. Man. Res.: Preliminary management recommendations
Cat Grading: Category grading as per B.S. 5837: 2012.

Appendix 4

Tree Survey Plan (plan1)
Tree Protection Plan (plan 2)





APPENDIX 5: Cascade chart for tree quality assessment (from British Standard 5837:2012)

TREES FOR REMOVAL				
Category and definition		Criteria		Identification on plan
Category U	Trees that have a serious, irredeemable,	Trees that have a serious, irredeemable, structural defect, such that their early loss is expected due to collapse, including those	cted due to collapse, including those	
I nose in such a condition that any existing value would be lost within 10	that will become unviable after removal shelter cannot be mitigated by pruning).	that will become unviable after removal of other R category trees (I.e. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning).	r reason, the loss of companion	DAKK KED
years and which should, in the current	 Trees that are dead or are showing signs 	Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline.	decline.	
context, be removed for reasons of	Trees infected with pathogens of significations	Trees infected with pathogens of significance to the health and/or safety of other trees nearby (e.g. Dutch Elm Disease), or very	arby (e.g. Dutch Elm Disease), or very	
sound arboricultural management	low quality trees suppressing adjacent trees of better quality	es of better quality.		
NOITHEEST TO BE CONSIDERED FOR RETENTION	NOTE Habitat reinstatement may	be appropriate (e.g. R category tree used as a bat roost: installation of a bat box in nearby tree)	lation of a bat box in nearby tree)	
Category and definition		Criteria – Subcategories		Identification on plan
	1 Mainly arboricultural values	2 Mainly landscape values	3 Mainly cultural values, including	
	•		conservation	
Category A	Trees that are particularly good examples of	Trees, groups or woodlands provide a	Trees, groups or woodlands of	
Those of high quality and value; in such	their species, especially if rare or unusual, or	definite screening or softening effect to the	significant conservation, historic, or	LIGHT GREEN
a condition as to be able to make a	essential components of groups, or of semi-	locality in relation to views into or out of the	commemorative or other value (e.g.	
substantial contribution (a minimum of	formal arboricultural features (e.g. the	site, of these in particular visual importance	veteran trees or wood-pasture)	
40 years is suggested)	dominant an/or principal trees within an	(e.g. avenues or other arboricultural		
	avenue)	features assessed as groups)		
Category B	Trees that might be included in the high	Trees present in numbers, usually as groups	Trees with clearly identifiable	
Those of moderate quality and value:	category, but are downgraded because of	or woodlands, such that they form distinct	conservation or other cultural	MID BLUE
those in such a condition to make a	impaired condition (e.g. presence of	landscape features, thereby attracting a	benefits	
significant contribution (a minimum of	remediable defects including unsympathetic	higher collective rating than they might as		
20 years is suggested)	past management and minor storm damage)	individuals but which are not, individually,		
		essential components of formal or semi –		
		formal arboricultural features (e.g. trees of		
		moderate quality within an avenue that		
		includes better, A category specimens), or		
		trees situated mainly internally to the site,		
		therefore individually having little visual		
		Timpact of the widel locality.	T = 1 = 1 = 1 = 1 = 1 = 1 = 1 = 1 = 1 =	
Those of low quality and value:	rees not qualitying in nigner categories	Trees present in groups or woodlands, but without this conferring on them significantly	Trees with Very limited conservation or other cultural benefits	GBFV
currently in adequate condition to		greater landscape values, and/or trees		
remain until new planting could be		offering low or only temporary screening		
established (a minimum of 10 years is		benefit		
suggested), or young trees with a stem				
diameter below 150mm				
	NOTE Whilst C category trees will usually not b	usually not be retained where they would impose a significant constraint on development, young	t constraint on development, young	
	trees with a stem diameter of less than 150mn	than 150mm should be considered for relocation		

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10-14 Spylaw Bank Road, Edinburgh Langton Tree Specialists Ltd., February 2015

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CHX Planning Local Review Body - Generic Email Account

From: Persephone Beer Sent: 03 July 2015 15:29

To: CHX Planning Local Review Body - Generic Email Account

Cc: Christine Brien

Subject: TCP/11/16 (355) - Local REview Body - additional information

FAO: Gillian Taylor, Clerk to the Review Body

Town & Country Planning (Scotland) Act 1997

The Town & Country Planning (Schemes of Delegation & Local Review Procedure) (Scotland) Regulations 2008

Application Ref: 14/010885/IPL – Erection of a dwellinghouse (in principle), land 50 metres south west of Milton Farm Cottage, Abernyte – Mr M Sands

Further to your letter of 25th June I consulted the PKC Flood Officer with regard to the additional drainage information submitted. The Flood Officer notes that : "The Drainage Impact Assessment (DIA) and the proposed drainage solutions seem acceptable at this stage for an "in principle" application. The applicant will have to provide more detailed information regarding the design including methods to prevent the drainage systems backing up in the event of a high flow down the burn if they come back with a full planning application."

Kind regards

Persephone Beer

Persephone Beer
Planning Officer
Planning and Development
The Environment Service
Perth and Kinross Council
Pullar House
35 Kinnoull Street
PERTH
PH1 5GD

Tel. 01738 475354

Email: PRBeer@pkc.gov.uk

Website: www.pkc.gov.uk

BFollow us